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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS



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CONTENTS

INTERNATIONAL AFFAIRS

- CEMA Cooperation in Transportation Projects Highlighted
(Heinz Gerber; DDR-VERKEHR, No 10, Oct 84)..... 1

BULGARIA

- Shortage of Specialist in Heavy Machinebuilding Outlined
(RABOTNICHESKO DELO, 15 Nov 84)..... 10

Problems in Recruiting, by Veselka Marinova
Commentary on Specialist Training, by Angel Kamenov

CZECHOSLOVAKIA

- Capital Asset Age Structure as of 1983 Discussed
(Karel Novotny; STATISTIKA, No 8, 1984)..... 15

GERMAN DEMOCRATIC REPUBLIC

- Transportation System To Stress Efficiency, Modernization
(Otto Arndt; DDR-VERKEHR, No 10, Oct 84)..... 23

POLAND

- Progress of New Power Line Project From USSR to Poland
(Ryszard Zatorski; TRYBUNA LUDU, 15 Oct 84)..... 37

- Light Industries Chief Outlines Modernization Plans
(Eugeniusz Zarzycki Interview; RZECZPOSPOLITA,
23 Oct 84)..... 41

Impact of Zloty Devaluation on FAZ Tax Computation (RZECZPOSPOLITA, 23 Oct 84).....	43
Sulfur Processing Plant Sets Expansion Plans (TRYBUNA LUDU, 16 Oct 84).....	44
Ample Coal Stocks for Export, Power Industry (Stanislaw Zielinski; TRYBUNA LUDU, 19 Oct 84).....	45
Briefs	
Reform Info Sharing With PRC	47
YUGOSLAVIA	
Gligorov Deplores Impediments to Small Business (Kiro Gligorov; EKONOMSKA POLITIKA, 24 Sep 84).....	48
Executive Council's Kovacevic Speaks on Foreign Liquidity (TANJUG, 27 Nov 84).....	56
Average Income, Family Needs in Major Cities (RAD, 14 Sep 84).....	59
Ineffectiveness of New Production Capacities (EKONOMSKA POLITIKA, 17 Sep 84).....	60
Status, Projection of Foreign Debt, 1983-1990 (EKONOMSKA POLITIKA, 5 Nov 84).....	63
Test Production of Uranium Concentrate at Zirovski VRH (Z. Medved; BORBA, 30 Oct 84).....	65
Data on Livestock Production, 1975-1984 (Slavomir Radosavljevic; GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA, No 9, Sep 84).....	67
Circuit Breakers, Drive Chain to USSR (EKONOMSKA POLITIKA, 5 Nov 84).....	74

CEMA COOPERATION IN TRANSPORTATION PROJECTS HIGHLIGHTED

East Berlin DDR-VERKEHR in German Vol 17 No 10, Oct 84 (signed to press 14 Aug 84) pp 305-308

[Article by Heinz Gerber: "Transportation and International Cooperation; The Tasks of the Transportation System to Implement the Decisions of the Economic Consultations of CEMA Members on the Highest Level"]

[Text] Our age abounds in evidence of internationalization resolutely proceeding in the social life of the peoples and their national economies. Trade and cooperation among countries are on the rise. The flow of tourists is broadening, environmental issues are internationally discussed and tackled. Not least has the all encompassing discussion and all-round struggle for the preservation of world peace raised social consciousness of the fact that we are all dependent on one another, and that peaceful coexistence is necessary to repel the threat of a nuclear holocaust.

This has also transpired with greater emphasis than ever in the conference of leading representatives of communist and workers' parties and the countries attending the economic consultation of the CEMA member countries at the highest level. The most important issues of the current stage and future prospects of economic development were discussed on the basis of the reciprocal cooperation among the fraternal countries, and this development was also considered within the total framework of the international situation as a whole.

Consequent on their discussions, the attendants addressed the international public by

- The statement on the main trends of further development and the deepening of economic and scientific-technological cooperation by the CEMA member countries),
- The declaration "on the preservation of peace and international economic cooperation."

Both documents are of the nature of programs for the further organization of cooperation both with respect to collaboration among the fraternal countries and relations with third states.

The subject matter of the statements is not just formally linked by clear political explanations of the general approach to the two great issues engaging the international activities of socialist countries, it does itself express unambiguity.

It is quite obvious that the socialist states will continue to further intensify and make more efficient their cooperation, guided by the principles of socialist internationalism, which are solidly rooted in the CEMA charter and the Complex Program for the further deepening and perfection of socialist economic integration. The CEMA countries are doing this for the continuing guarantee of the economic and social progress in their states, for the strengthening of the material-technical base of their societies, the steady care for the people, the all-round development of the personalities of their citizens and their confidence in the future.

It is also evident that this also happens to further reinforce the material base of the policy of peace, international detente and reciprocal and profitable cooperation with other countries. In other words, in relation to all third parties, reciprocal cooperation is neither an instrument of self-sufficiency nor of the sealing off of markets and trade relations, nor confrontation and conflicts; it is instead directed to the encouragement and consolidation of relations with all states and forces ready for cooperation, propelled by concern for the preservation of peace and the guarantee of social progress.

This political and economic significance therefore belongs to all actions and measures adopted either in their internal affairs to strengthen the economic power of the community of nations assembled around the USSR or undertaken in relations with third states in the expectation of mutual profit.

The transportation system, its functions and tasks, is fully incorporated in this overall scope and must contribute to the practical implementation of the abovementioned basic policy. The specific importance of precisely the development of efficient international transport relations arises from the status of the transportation system as a basic requirement of any modern international division of labor, production cooperation and the exchange of goods between national economies.

Extensive international traffic is very much an indicator of the status of international economic relations--an efficient material-technical base of the transportation systems a prerequisite of its smooth further evolution.

The socialist countries have always been guided by this basic conviction. The directive of the Complex Program as the basic program of reciprocal cooperation already offered room for the planned development of such relations. The topicality of this cooperation was explicitly reaffirmed in the above mentioned statement on the main trends of further cooperation.

Let us remember that the member countries agreed in the Complex Program "to deepen and perfect the cooperation of the CEMA member countries in

the transportation system as well as punctually and more effectively meet the steadily growing need of their national economies and peoples for transportation by all carriers, especially the demand for international transportation." It was therefore agreed

- To coordinate future requirements and the development plans of the transportation system with regard to specific issues of demand satisfaction,
- To generally improve the capacity of the main rail lines, in combination with raising the percentage of advanced types of traction,
- To introduce efficient operating methods in international freight car and container traffic,
- To perfect the methods of cooperation of shipping enterprises,
- To expand the network of the international trunk roads of the CEMA member countries,
- To comprehensively rationalize operating processes of all carriers by efficient scientific-technological cooperation (WTZ).

Some of these measures are already past history, others are still to be carried out. In future years also it will be imperative in adaptation to the growing and changing demand to further raise the capacity and efficiency of transports and respond to growing and changing needs. The results and experiences of the years since the adoption of the Complex Program have established the bases. With respect to the above mentioned key issues, this is reflected, for example, in the fact that

- A system of demand coordination was developed, ranging from forecasts on coordination for five-year plan periods to the recording of annual transport volumes on the basis of treaties on cooperation and reciprocal goods exchanges,
- The infrastructural network was systematically expanded. In the years 1970-1982, for example, the rail network advanced from 218,000 km to 231,000 km and the share of electrified sections by 50 percent, while the network of hard top roads increased from 855,000 km to 1,170,000 km,
- The joint freight car pool (OPW) grew from around 135,000 (1970) to 304,000 (1982); the SPC system was introduced, and now about 400,000 large containers are annually carried within its scope,
- The improvement of community scheduled services and cooperation is recorded with respect to shipping, within the framework of the Permanent Meeting of Representatives of Freight and Ship Owning Organizations of the socialist countries,
- Extensive multilateral scientific-technical cooperation ranges across the entire reproduction process of the carriers. The GDR, for its part, contributes more than 200 topics per annum, and this cooperation in general deals with many issues ranging from the exchange of maintenance processes via anticorrosion procedures to the use of microprocessor equipment.

These few selected facts show that the directives were implemented and the transportation system contributed by various measures to practice and perfect integration.

Cooperation by the transportation systems of the CEMA member countries has organically grown across the years, backed by the principles and the spirit of socialist internationalism and fraternal affection. This cooperation is therefore also part and parcel of the development of the socialist transportation system in the 35 year history of the GDR.

It was fitting in view of this continuity of international transport political work that, against the background of the growth and changes in transportation needs, the long-range target program for transportation was drafted in the late 1970's to extrapolate the objectives of the Complex Program in the shape of new and comprehensive measures in accordance with the new demand-side requirements.

Consequently 23 bilateral and multilateral agreements have so far been drafted and signed within the scope of the long-range transportation target program (LZPZ); the GDR is involved in 11 of these agreements.

Among them are accords on important expansion programs in the sector of rail transportation. Agreed, for example, was

- The construction of second tracks or the new track construction of 2,480 km
- Section electrification of 6,350 km
- The provision of modern safety equipment on 7,480 km
- The superstructure reconstruction of 9,420 km.

Agreed in the sector of the road system was

- The construction or reconstruction of motorways and trunk roads for international traffic amounting to 8,130 km.

These treaties run through 1990, some of them even longer.

What are the prime concerns now, in the mid-1980's, following the consultations of CEMA member countries at the highest level?

The above mentioned statement says, among others:

"The participants at the consultation are agreed that the most important tasks of the CEMA member countries in the sector of the economy and reciprocal cooperation in the present stage are the following:

The speeded-up conversion of the economy to the intensive approach and the improvement of its efficiency by the perfection of the structure of social production, the rational and thrifty utilization of the available material and manpower resources and the better utilization of basic assets and the scientific-technical potential;

The guarantee of the continuing growth of social production as the basis of the reinforcement of the material-technical base of the socialist society, for the improvement of the people's prosperity;..."

After describing specific measures to buttress planning and branch specific cooperation, the statement explains with respect to the transportation system:

"The CEMA member countries will carry out coordinated measures for the comprehensive development of the transportation system, concerning in particular the tighter coordination of plans for the development of the transportation system, the coordination of mutually interesting investments for the development of the countries' infrastructure in this field, the improvement of the pass capacity of border depots, the perfection of the planning system and the conditions for the carriage of foreign trade goods by all carriers. Special attention will be devoted to the need to improve the conditions of seaborne transportation to the Socialist Republic of Vietnam and the Republic of Cuba."

Cooperation in the transportation system is therefore concerned with the continuing pursuit of the integration initiated in the conditions of the present stage of development, characterized by the comprehensive and all-round intensification of the national economies of all CEMA member countries.

We are therefore confronted with the need to accomplish two complex tasks:

Firstly we need in good time and correctly to understand the transport related demands arising from the speeded-up conversion of the national economy to the intensive approach and the perfection of the production structure and to base all development conceptions on this perception, and

Secondly we need to comprehensively and thoroughly intensify transport processes so as to noticeably lower the high transport costs arising in carrying on international traffic.

The first complex is related to the fact that, in the course of thoroughgoing intensification and with a view to the international exchange of goods, the volume and structure of transport needs is bound to undergo changes. These must be recognized, their transport related consequences accurately analyzed and taken into consideration in planning.

We are now expecting rates of increase in the international freight traffic of the CEMA member countries to drop by 50 percent in the coming five-year plan period, but demand will still continue to grow. That applies to the quantitative increase in absolute dimensions and equally to the growing qualitative requirements.

In quantitative terms, the total volume of freight and its structure will continue to be governed by raw materials and fuel; in qualitative terms, however, we will see a strong rise in the volume of those goods which are particularly fragile and packaging intensive or require special handling.

These are goods produced by the chemical industry, machine parts and sets, consumer goods of all kinds, including fragile items such as radio-electronic products, glass and ceramic items as well as heavy and outsize goods.

Discussion on these issues is proceeding now, together with the necessary precise definitions of the expansion conceptions for the infrastructures and other capacities.

The second complex involves the fact that the transportation system must do more in its international cooperation than "catch" the effects of the intensification processes by way of measures for the full satisfaction of the new transport requirements: As a producing sector it also needs to comprehensively intensify its own operations.

That is the order given the transportation system with a view to another noticeable reduction of transport costs as a contribution to the intensification efforts of the entire national economy--interpreted here in its international references.

The importance of this task far exceeds the impact of the goods to be carried in the total volume of transportation, because the dimension of the transport operation and the specific transport costs in international traffic tend to be much greater than in domestic traffic. Transport distances, for example, amount to an average of 1,200 km for international transports among the CEMA member countries--roughly 3 times the distance of international transports within the scope of the ECE. At the same time the volume of transport packaging is triple that of domestic transports.

As far as we can judge at present, the ongoing intensification in the international traffic of the CEMA member countries must take account of three main needs:

- The most favorable distribution of assignments between the carriers in terms of costs,
- The perfection of community solutions with regard to the use of transportation equipment,
- The further comprehensive rationalization of transport operations by each carrier.

All three main trends determine the program of the practical measures involved in continuing cooperation.

In this context we definitely note the continuing advantage of shifting transports to cheap marine and inland shipping. In the 1986-1990 period this will include the beginning of operations of the Sassnitz-Klaipeda ferry service. Though the share of the railroad will further drop as a consequence, it will still be the most important carrier.

Crucial in the case of the railroad, therefore, is the second above mentioned main trend--the perfection of community solutions with regard to the use

of transportation equipment. This refers primarily to the work of the OPW and the SPC system. Building on the respective excellent experiences, it will be necessary further to perfect the regulating methodologies and raise the efficacy of economic levers for the rapid return of cars and containers. Community scheduled services were also perfected with respect to shipping and aviation, and new common methods developed for the use of containers and pallets.

Taking account of the excellent results of WTZ, the common efforts for the total intensification of processes will be lifted to a new stage. Basically it is a matter for even more widely using in transportation-transshipment and maintenance processes such progressive technologies and scientific-technical developments as represented by microprocessors, robot equipment, isotope and laser equipment. The directives issued by the economic consultation have set the guidelines of this development. Practical cooperation will now be reflected in many individual operations.

Applicable to the transportation system, too, is the following section of the "statement":

"All action must contribute to the mobilization of the potentials of the countries and to the reinforcement of their reciprocal cooperation with the objective of the dynamic and harmonious development of the economy of each country and the entire community of CEMA members on the basis of the all-round intensification of production and the introduction of international achievements of scientific-technical progress, to the safeguarding of the necessary resources, especially fuels, energy, raw materials..."

It is also a fact that all this happens in order to develop CEMA economic strength for the defense of peace and the prosperity of all mankind. This demonstrates that reciprocal cooperation needs to be organically supplemented by links with third parties.

With regard to the purposeful utilization of the opportunities existing for such links--among others in and by the transportation system--, the declaration states:

"The CEMA member countries advocate the more active utilization of the potentials for the development of commercial cooperation with capitalist states as well as their corporations and firms. In this respect, the expansion of economic relations between European countries in the spirit of the Helsinki final act and the agreements arrived at in Madrid are particularly important. Mutually beneficial cooperation between them might contribute to the expansion of trade, energy and raw materials supplies, the speedup of technical progress, the development of international transportation, the defense of the environment and increasing employment in countries where unemployment rates are high."

The development of international transportation in its global dimensions is clearly stressed as a significant task. It will be assisted by the socialist countries in practical transport political work.

Since its conception by V.I. Lenin, the policy of peaceful coexistence has determined the principles of the foreign policy of the Soviet Union and the other socialist countries vis-a-vis developed capitalist countries. It has been the basis for the policy of peace, detente and the development of relations of equality and mutual profit.

Since the 1970's, the proportion of the CEMA member countries' foreign trade with the developed capitalist countries has been around 25 percent. The transportation system has contributed its efforts to the handling of the transports resulting from foreign trade.

This includes the conclusion of the necessary transport agreements just as much as constructive collaboration in international organizations at state level within the framework of the United Nations and in all important non-state organizations such as the UIC, IRU, FIATA or others.

Consonant with the basic orientation clearly expressed in the declaration, we will now need to further develop all these activities and contacts. This includes the need

- To even more comprehensively use the transportation system as the carrier of direct relations and its many kinds of international cooperation for the purpose of foreign policy objectives,
- Consonant with the growing transport requirements to orient to the appropriate long-term coordinations concerning in particular the development of the infrastructure, the deployment of transport equipment, the introduction of new technologies, and so on,
- To take into consideration complex questions concerning environmental control, the application of progressive trends in science and technology, the use of energy and other resources, to cultivate the appropriate exchange of experiences and emphasize practical cooperation with the relevant partners.

The range of possible measures to be adopted is wide indeed, and it is impossible to deal with them in detail in this article. On various occasions the socialist countries, for example, have backed Soviet initiatives for the convocation of an all-European transportation conference, where many of the various possibilities might be discussed.

In disregarding the still dismissive attitude of leading Western countries, several important measures on special issues have been tackled. They include, among others, effective cooperation on infrastructure in an all-European framework. From the standpoint of the GDR this is demonstrated by the fact that the "European Agreement on Main Routes of International Traffic" has taken effect and in its collaboration in the current drafting of a European trunk rail network. Multilateral cooperation is complemented by many and varied bilateral contacts yielding excellent results, such as the GDR maintains with Sweden or Austria. In our relations with the FRG also, the results of the latest working visit to the FRG by the GDR

Minister for Transportation, will achieve more benefits provided there is good will in the negotiations, coupled with total respect for the sovereign rights of both countries.

It is consonant with the basic guideline sketched in the Declaration to encourage profitable contacts of this type with all partners, so as to promote peaceful coexistence by practical measures in the transportation system also. To shape the future means to secure the CEMA member countries' integration from the aspect of transportation, too, and at the same time by far sighted cooperation to guarantee transports arising from economic ties with all other states.

1169

CSO: 2300/108

SHORTAGE OF SPECIALISTS IN HEAVY MACHINEBUILDING OUTLINED

Problems in Recruiting

Sofia RABOTNICHESKO DELO in Bulgarian 15 Nov 84 pp 1, 2

[Article by Veselka Marinova, special correspondent for RABOTNICHESKO DELO in Radomir: "Why Is There a Problem With Cadres?"]

[Text] Borislav Taskov, a designer for many years, directions manager at the Institute for Heavy Machine Building, began the conversation about cadres with an interesting thought: the secret of each technology is not in recipes and instructions, but rather in the masters. Did he make a mistake by putting technology in the background? It is no accident that the combine's management is very concerned about providing enough cadres for production. Today, however, we are not going to talk about the combine; we are going to talk about the Plant for Heavy Machine Building and the Institute for Heavy Machine Building in Radomir. The present status of their cadres reveals quite a few unresolved problems.

The Plant

They do not complain about a lack of young people here: 40 percent of the workers are less than 30 years old. But neither their comparatively high level of education nor their vocational training are a precondition in the face of a fluctuation of manpower. Many of these workers are hired, trained, and...then they go away. This plant's modern equipment attracts them, and frightens them, too. It is not possible to operate it in just any old way, only in a precise manner, with high output. The workers, and the specialists, and the combine's management understand this.

There are training and retraining schools--as many as you would like--but there is no desire, no personal interest, no initiative. Someone has to remind them. It is difficult to attract people for postgraduate training. It is hardly possible to blame everything on only a lack of moral and material incentives.

This is, however, only one side of the question. The other side is that Pernik Okrug needs labor resources. Unfortunately, its neighbors, Kyustendil and Blagoevgrad Okrugs, have thus far not fulfilled the programs for sending

workers to the combine's territory. The same situation also exists among the specialists with secondary and higher education who have been taken on, according to the plan's goal, for the needs of the Pernik industrial complex. During the past year, 1,300 such specialists have graduated around the country, and only 280 of them have come to Radomir; all the rest were kept for work in their own okrugs.

The Institute

Here specialists with a higher education prevail. There are not enough of them, however, and their training at the institute barely has anything in common with heavy machine building. The work at the institute is very specific; the nature of the production requires the development of many different technologies. Although there is already a solid scientific collective there, 42 scientific associates and 9 postgraduate workers, it would still be difficult to say that the engineers have the necessary conditions for adequate creative achievement. There are no opportunities for experimental activity, not to mention that now tracing paper and pencils are the designers' only "helpers." These are the cadres the institute is supposed to use to support production. It does provide it. But how, at what price?

The situation with the designers who have inherited the Development and Application Base at the Struma Plant is more optimistic. There are experienced, trained cadres there, capable of solving tasks quickly and in compliance with the requirements. As far as the technicians are concerned, things are different: such cadres for heavy machine building have yet to be designed and created. In both cases, however, there are striking discrepancies with the requirements of this contemporary production. Adjusting the "clocks" in line with worldwide achievements has not become a necessity, a condition for creativity. There are many reasons for this: beginning with the nature of the work thus far, that is, adapting foreign designs to our standards, and ending with the unsatisfactory information services at the institute.

What about the everyday problems with the cadres?

Young engineers, as a rule, come from higher education institutions, bringing with them their desire to deal with large, significant problems. The daily routine at the institute, though, sweeps them away and instead of being at the drawing board they end up in the workshop, surrounded by the concerns of production.

Requirement number one is that the designers and technicians be knowledgeable about the latest, even future, technologies in the appropriate branches. However, they are not at all familiar with forecasting developments in their branches. So it turns out that their aspirations for creating new machines are not supported by precise and substantial scientific data.

Because many of these questions have a concrete addressee, we brought them to the attention of the following institutions:

The Ministry of National Education--the plant in Radomir has already been under construction for many years; this has been sufficient time to train the first specialists in heavy machine building. Since this has not yet been done, are highly qualified cadres going to be trained for this new branch?

The okrug people's councils--the Plant for Heavy Machine Building in Radomir is not Pernik Okrug's "property." It is important for the overall development of our economy. When will local interests, with regard to labor resources for the Pernik industrial complex, be overcome?

The Main Directorate for Plant Construction--when will engineers' input in production be provided with the appropriate basis for experimental and creative work?

Survey

Are there enough cadres at the Plant for Heavy Machine Building and the Institute for Heavy Machine Building in Radomir? What is their training? Why is it difficult to attract and keep them at the combine? Managers, specialists, and workers helped us in answering all these questions in our correspondent's temporary post. Here are the opinions of some of them:

Anna Ruseva, sociologist at the institute: "There are many young people who come, full of ambition and desire for creativity, but there is great turnover. The reason for this, according to the survey conducted, is the remoteness of the site from large cities."

Yuliya Purvanova, coordinator for training at the institute: "We requested 216 persons, but only 6 specialists with a higher education have been assigned during this year."

Vasil Stoyanov, deputy director of the institute: "The problem is not only in terms of the quantity of cadres. Their training is not satisfactory, either. We manage to handle, to a certain extent, the tasks assigned, because construction is behind and the schedules are being extended."

Borislav Markov, engineer: "There is still a lack of labor organization and this, in my opinion, is a reason for the turnover. Otherwise, there would be a possibility for adequate realization."

Lyubomir Enev, chief specialist in the Cadre Training Department at the combine: "We have not yet found an answer to the question of how to attract specialists and how to keep them."

Commentary on Specialist Training

Sofia RABOTNICHESKO DELO in Bulgarian 15 Nov 84 pp 1, 2

[Article by Angel Kamenov, candidate in economic sciences, deputy director of the Economic Combine for Heavy Machinebuilding in Radomir: "Present and Future Machinebuilders"]

[Text] Original, modern and highly precise equipment is being implemented at the Economic Combine for Heavy Machine Building in Radomir.

In order to use the equipment to its full capacity, it is necessary to have experienced and highly trained specialists.

Most of the cadres for the combine are being trained at higher and secondary educational institutions. Now 12.5 percent of the specialists have a higher education; 28 percent have college and secondary special education; 26.5 percent have secondary and secondary vocational training; and 33.3 percent, have elementary and primary education. Although the educational level is higher than the average for the country, the problems with training cadres are serious. The training does not comply with the requirements of heavy machine building. We ought to improve their qualifications through various courses and schools. Over 1,800 specialists and workers take them each year.

The school for postgraduate training at the V.I. Lenin Higher Machine-Electrical Institute is a new form, with good prospects, of training specialists with higher education. A course on organizing a machine building enterprise is going to be offered. At both of the vocational training centers at the combine, 200 new workers are trained each year for the basic machine building professions. More than 2,000 workers improve their skills. Over 100 workers acquire a second profession. More than 1,000 people attend the schools for economic sciences, leading experience, and training at the concrete workplaces, as a form of brushing up their knowledge. The combine's management has done a lot of useful work on vocational specialization of students during the third stage of training

However, the level of training of workers within our own system is lower than the requirements for the items we produce. The difference will continue to increase in the future because even more complex products will be adopted from the production nomenclature. Experience shows that in addition to specialists who are knowledgeable about present production, trained cadres whose preparation should be ahead of production innovations are also necessary.

What should be done?

We have developed, together with the Ministry of National Education, a program for cadre and scholarly service at the combine. It anticipates training instructors abroad as well as attracting foreign specialists for training our cadres. Special attention is devoted to utilizing the experience of the Soviet Union and other socialist countries. An important role is given to improving the scholarly services of the combine provided by the Institute for

Heavy Machine Building, as well as improving cooperation with higher education institutions in our country and abroad.

Concrete work will be done in improving the basis for vocational education centers and creating a new one for practical knowledge. A specialized center for welding, for example, will be opened, which will train welders according to the new methods.

Building the material basis for training workers and specialists will create better conditions for increasing the quality of the cadres' training.

12334

CSO: 2200/48

CAPITAL ASSET AGE STRUCTURE AS OF 1983 DISCUSSED

Prague STATISTIKA in Czech No 8, 1984 pp 363-368

[Article by Engineer Karel Novotny, science candidate, Federal Statistical Office, Prague: "The Age Structure of Capital Assets in 1983"]

[Text] In cooperation with its Czech and Slovak counterparts, the Federal Statistical Office conducts, at varying intervals, special surveys of the age structure of capital assets. Through these surveys we obtain information that particularly the federal, Czech and Slovak planning commissions, and other central managing organs use to substantiate the plan for the replacement of capital assets. The indicators of the capital assets' age structure characterize the proportions of the individual age groups within the stock of capital assets, and thereby the intensity of the capital assets' replacement over a longer period of time. On the basis of these characteristics it is possible to model forecasts of how the stock of capital assets and capital construction will develop.

The first survey of this kind was conducted in conjunction with the general inventory of capital assets as of 1 January 1955. Subsequent surveys reflected the age structure of capital assets as of 1 January 1968 and 31 December 1976; and the latest, as of 30 June 1983.

The purpose of this article is to outline the main methodological principles of the 30 June 1983 survey and to briefly analyze its results, comparing them with the basic data of the 1976 survey.

The 1976 survey covered all socialist organizations. The 1983 special survey covered all socialist organizations except the social organizations and the ones predominantly of an administrative nature. Although the populations of the two surveys are not entirely identical, their results nevertheless are comparable because the organizations excluded from the 1983 survey account for merely 4 percent of the socialist organizations' capital assets, and their capital assets essentially consist only of buildings and structures.

The age structure of capital assets is determined by computation from the value indicators of the stock of capital assets based on the acquisition cost, in a breakdown by the years of acquisition and accumulated basically into five-year intervals (from 1945 through 1983). When capital assets are converted, overhauled or modernized, the year in which the project is completed is regarded

as the year of acquisition, provided that the project's cost is more than 50 percent of the original acquisition cost. In the case of such an extensive and nonhomogeneous population, computation from indicators in physical units (the number of units, for example) does not come into consideration.

Expressing the value of capital assets in terms of their acquisition costs, however, raises a number of problems because the prices at which capital assets are acquired change. Since in our country the service life of machinery is 20 years or more, and that of buildings and structures is even longer, the volume of capital assets may be expressed in terms of different price levels, which rules out the possibility of comparing them over time. Therefore we conduct surveys of the age structure of capital assets only when the value of the capital assets on the books of the enterprises is based on the same price level, or when the statistical organs are able to recompute the results of the survey into comparable prices. In the past, the data of the 1955 survey were expressed in terms of the current replacement cost based on the 1 July 1954 wholesale price level. The 1968 survey started out from the wholesale prices that were in force as of 1 January 1967; the 1976 survey, from the 1 January 1977 prices; and the 1983 survey, from mixed prices.

The survey as of 31 December 1976 was conducted in conjunction with the revaluation of capital assets, within the framework of a comprehensive reform of wholesale prices. Pursuant to the pertinent guidelines, the capital assets of all socialist organizations were recomputed with the help of replacement cost coefficients, differentiated by classes of the uniform classification of capital assets and by the years of acquisition (from 1955 through 1976). There were in all roughly 4,000 coefficients.

There were no pronounced price changes in the years between this survey and the one as of 30 June 1983, and therefore the results of the two surveys are roughly comparable. For analytical purposes, the Federal Statistical Office recomputed the surveyed data in value terms into comparable prices of 1 January 1977, with the help of price indices constructed on the basis of state price statistics (the indices in question were the price index of construction work, the wholesale price index of domestic machinery, and the price index of imported machinery).

The analytical evaluation that follows also starts out from data recomputed in this manner.

Age Structure of Socialist Sector's Capital Assets

In comparison with 1976, there is no remarkable change in the age structure of capital assets. The average age of buildings and structures has dropped from 25.6 years in 1976 to 24.2 years in 1983, and there has been a moderate rise in the average age of machinery.

The proportion of machinery in the youngest age bracket (0 to 5 years) has dropped 3.6 percentage points, and the proportion of machinery more than 25 years old (in most industries this applies to machinery and equipment that is already worn out or has become obsolescent) has increased from 6.7 percent

Table 1. Age Structure of the Socialist Sector's Capital Assets at Comparable Prices of 1 January 1977

	(1) Průměrné stáří v letech	(2) Podíl věkových skupin na celkovém objemu v %					
		(3) 0-5 let	6-10 let	11-15 let	16-25 let	26-50 let	(4) nad 50 let
1976							
Budovy a stavby (5)	25,8	22,7	16,6	11,1	15,4	13,5	19,7
Stroje a zařízení (6)	10,4	37,4	24,8	16,1	15,0	5,3	1,4
1983							
Budovy a stavby (5)	24,2	20,8	18,5	13,3	16,9	13,4	17,1
Stroje a zařízení (6)	10,7	33,8	27,3	15,9	15,4	6,3	1,3

Key:

- | | |
|---|-----------------------------|
| 1. Average age, years | 4. Over 50 years |
| 2. Age brackets in percent of of total volume | 5. Buildings and structures |
| 3. Years | 6. Machinery and equipment |

in 1976 to 7.6 percent in 1983. In absolute terms the volume of machinery in the oldest age brackets exceeded 56 billion korunas, an increase of 24 billion korunas over 1976.

The distribution of the five-year age brackets of machinery in 1983 is presented in Fig. 1.

The physical life of capital assets is roughly double their average age. Which means that at present buildings and structures remain in the production or other process 48 years on average; and machinery and equipment, 21 years. Especially the service life of machinery is so long that it narrows the room for the realization of the progress in research and development.

The long service life of machinery can be attributed to low utilization of our production assets base, and to slow renewal of the stock of machinery.

In 1983, at a shift index of 1.440, machines in industry were utilized only 66.1 percent of the time available in two shifts. According to the survey conducted in 1982, selected types of machinery were used only 8.5 hours a day on average (net operating time, without the idle time during a shift); mechanized machines were in operation only 7.2 hours a day; partially automated machines, 8.2 hours; and fully automated machines, 11.5 hours a day.

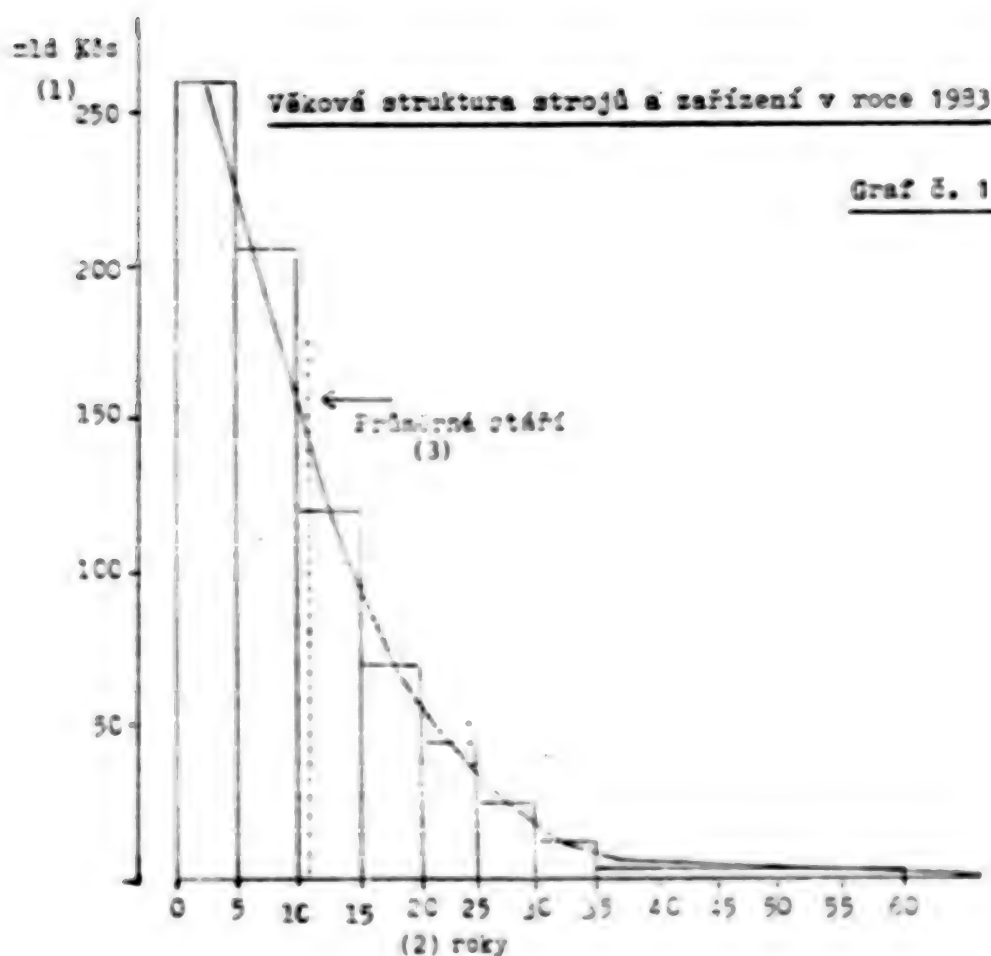


Figure 1. The age structure of machinery and equipment in 1983.

Key:

1. Billion korunas

3. Average age

2. Years

The long service life of machinery is evident also from a comparison of the average physical life and of the average depreciation period determined by the depreciation norms that are in force. Machinery and equipment depreciate over a period of 14 years on average. But their physical life, as we have seen, is 21 years or 7 years longer (and even 10 years longer in industry).

The difference between the depreciable life and the actual physical life of machinery and equipment is due to the fact that the depreciation rates are constructed for two-shift operation. But since the machines are used only 1.4 shifts a day, their service life can be longer than what would follow from the depreciation rates, i.e., it can be roughly 20 years.

The so-called machinery retirement coefficient (the ratio of retired machinery to the stock of machinery at the beginning of the year) characterizes the slow rate of machinery renewal. In 1977-1983, it did not exceed 2 percent.

The low degree of machinery utilization is striking in comparison with the German Democratic Republic where, computed according to the same methods as in Czechoslovakia, selected types of machinery are used more than 15 hours a day, and the conclusions of the 10th SED Congress call for increasing the utilization of such equipment to between 16 and 17 hours a day by 1985.* In conjunction with this problem it is worth mentioning that the utilization of selected types of machinery is a mandatory indicator of the state plan in the GDR (the available operating time is planned for each machine), and nonfulfillment of this indicator invokes stiff penalties.

Slow renewal of capital assets is a problem in the Soviet economy as well. There the retirement coefficient of productive capital assets has dropped from 2.3 percent in 1970 to 2.0 percent in 1975 and 1.9 percent in 1980; and within industry it has dropped during the same period from 1.9 to 1.6 and 1.4 percent respectively.** In Czechoslovakia the retirement coefficient of productive capital assets is even lower than in the Soviet Union: it has dropped from 1.1 percent in 1970 to 1.0 percent in 1980, and in industry it never reached even 1.0 percent in any year during this period. Soviet economists estimate that the retirement coefficient should increase to 2.7 percent if the minimal prerequisites for replacement of predominantly the intensive type are to be ensured.

Age Structure of Machinery and Equipment in Selected Industries

If we examine the age structure of machinery and equipment by branches of the national economy, we find that between the two surveys the average age of machinery rose slightly in industry, from 11.5 to 11.9 years; dropped slightly in construction, from 7.3 to 7.0 years; likewise in agriculture, from 7.1 to 6.8 years; but increased by one year in transportation, from 10.7 to 11.7 years.

Within industry, ferrous metallurgy and the electric power industry have the oldest machines because here the long service life of mechanical equipment is determined by the nature of the technology. Within light industry, the printing industry has the least favorable average age of machinery, despite the fact that the state of the technology base in this industry has improved considerably since the last survey, as a result of intensive renewal.

Machinery has aged the most in recent years in the chemical industry, metallurgy, the construction materials industry, and the glass, ceramics and porcelain industry. In a number of industries the unfavorable development of the average age of machinery is a result of the mechanical equipment's slow renewal.

The youngest machines are to be found in the clothing industry, which now has a relatively modern and progressive technology.

*From the SED Central Committee's report, RUDE PRAVO, 13 April 1981.

**V. Faltsman and A. Ozhegov, "The Retirement of Capital Assets: Investment Possibilities and Limitations," Moscow, VOPROSY EKONOMIKI, No 6, 1983.

Table 2. Average Age of Machinery by Industries (in Years, Computed From the Comparable Prices of 1 January 1977)

Odvětví (1)	1976	1983	Rozdíl (2)
Průmysl paliv (3)	12.1	11.1	-1.0
Energetický průmysl (4)	12.0	12.6	+0.6
Hutnictví železa (5)	13.3	13.0	+1.7
Hutnictví neželezných kovů (6)	10.8	11.5	+0.7
Chemický a gumárensko-oděvní průmysl (7)	9.4	11.7	+2.3
Strojírenství (8)	12.0	11.8	-0.2
Elektrotechnický a kovodělný průmysl (9)	10.4	10.8	+0.4
Průmysl stavebních hmot (10)	9.5	10.9	+1.4
Dřevozpracující průmysl (11)	9.4	9.4	0.0
Průmysl papíru a celulózy (12)	11.3	11.4	+0.1
Průmysl skla, keramiky a porcelánu (13)	10.7	11.5	+0.8
Textilní průmysl (14)	11.8	12.1	+0.3
Konfekční průmysl (15)	8.2	8.4	+0.2
Koždělný průmysl (16)	11.3	11.8	+0.5
Polygrafický průmysl (17)	15.4	13.8	-1.6
Průmysl potravin a pochutin (18)	11.7	11.7	0.0

Key:

- | | |
|-------------------------------------|-----------------------------------|
| 1. Industries | 10. Construction materials |
| 2. Difference | 11. Wood processing |
| 3. Fuel | 12. Pulp and paper |
| 4. Electric power | 13. Glass, ceramics and porcelain |
| 5. Ferrous metallurgy | 14. Textile |
| 6. Nonferrous metallurgy | 15. Clothing |
| 7. Chemical & rubber-asbestos | 16. Leather |
| 8. Engineering | 17. Printing |
| 9. Electrotechnical & metal-working | 18. Food and gustatory products |

The average age of machinery is relatively high in engineering, and in the electrotechnical and metalworking industry, especially if we take into consideration that these industries are intended to supply modern and progressive technology for the other industries and branches of the economy.

When evaluating the age structure of capital assets in any industry, it would be very useful to employ the advantages of international comparisons.

However, it is difficult to compare the data on the age structure of capital assets in our economy with those of other countries. Such data are available only for certain countries, and it is questionable whether they can be evaluated at all, in view of the differences in the methods employed.

Data on the age structure of metalworking machines are an exception. They are available from the inventory of machines that have traditions of long standing in the engineering industries of certain industrially developed countries. The machines in this industry form a relatively homogeneous population, and their

age structure is computed from the number of machines in the individual age brackets.

Table 3. Age Structure of Machine Tools and Forming Machines

	Rok zjištění (1)	Počet kusů (tis.) (2)	Průměrná stáří (roky) (3)	Stroje ve stáří v %		
				0-4 let (4)	5-9 let (5)	20 let a více (6)
CSSR	1981	235	17,7	11,7	26,9	39,2
USA	1983	2 193	15,0	13,1	32,8	33,2
Kanada (6)	1978	211	14,8	-	35,7	33,8
NSR (7)	1980	1 250	13,6	15,0	34,0	48,0 ¹⁾
Francie (8)	1980	781	14,7	16,0	35,0	32,0
Itálie (9)	1975	541	12,4	-	38,1 ²⁾	28,0 ³⁾
Japonsko (10)	1981	918	10,5	-	36,4 ⁴⁾	35,6 ⁵⁾
Velká Británie (11)	1982	775	11,7	42,3 ⁶⁾	-	27,3

Key:

- | | |
|---|--------------------------------|
| 1. Year of survey | 6. Canada |
| 2. Number of units (thousands) | 7. Federal Republic of Germany |
| 3. Average age (years) | 8. France |
| 4. Percent of machines 0 to 4 years old | 9. Italy |
| 5. 20 or more years old | 10. Japan |
| | 11. Great Britain |

Footnotes to Table 3:

1. Over 15 years old.
2. From 0 to 5 years old.
3. Over 18 years old.
4. From 0 to 7 years old
5. Over 13 years old.
6. From 0 to 5 years old.

Bibliography to Table 3:

For Czechoslovakia: "Soupis stroju a zarizeni ve strojirenstvi CSSR" [Inventory of Machinery and Equipment in Czechoslovak Engineering], VUSTE [Engineering Technology and Economics Research Institute].

For the other countries: AMERICAN MACHINIST, Nov 83, p 116.

From the data it follows that the age structure of metalworking machines in Czechoslovak engineering is less favorable than in the other industrially developed countries. Japan has the youngest stock of machinery.

The relatively oldest machines and the largest volumes of machinery past its depreciable life are to be found in the classes of the uniform classification of capital assets shown in the following table (see Table 4).

In absolute terms, the largest volume of machinery past its depreciable life can be found in class 512 (machine tools) and class 483 (industrial boilers). The 1983 survey found nearly 4.0 billion korunas' worth of boilers more than 25 years old. The old age of such equipment has an adverse effect on fuel consumption within energy management.

Table 4.

Kód (1)	Název uboru (2)	Doba od- pisování v letech (3)	Objem strojů připravených doby odpi- sání v mil. Kčs (4)	% z celku (5)
521	Stroje a zařízení pro sklarský průmysl (6)	10	955	7.8
533	Stroje a zařízení pro stavební a silniční práce (7)	7	6 674	41.1
525	Stroje a zařízení pro polygrafický průmysl (8)	14	1 232	9.7
512	Stroje obráběcí (9)	14	16 158	71.7
526	Stroje a zařízení pro potravinářský průmysl (10)	14	915	13.6
506	Zařízení pro chemický a potravinářský průmysl (11)	17	1 052	12.5
496	Stroje a zařízení pro geologický průzkum (12)	8	362	11.1
507	Stroje a zařízení pro chemický průmysl (13)	14	2 346	21.7

Key:

- | | |
|--|--|
| 1. Code number | 8. Machinery and equipment for the printing industry |
| 2. Name of class | 9. Machine tools |
| 3. Depreciable life (years) | 10. Machinery and equipment for the food industry |
| 4. Volume of machinery past its depreciable life (million korunas) | 11. Equipment for chemical, food ind. |
| 5. Percent of total | 12. Machinery and equipment for geological exploration |
| 6. Glass industry machinery and equipment | 13. Chemical-industry machinery and equipment |
| 7. Construction and road machinery and equipment | |

Our analysis of the age structure of capital assets shows that closer attention must be devoted to the renewal of mechanical equipment. Raising the technological level of the machinery and its more efficient utilization are one of the ways to step up the economy's intensification and to improve its efficiency.

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CSO: 2400/90

TRANSPORTATION SYSTEM TO STRESS EFFICIENCY, MODERNIZATION

East Berlin DDR-VERKEHR in German Vol 17 No 10, Oct 84 (signed to press 14 Aug 84) pp 290-295

[Article by Otto Arndt, GDR Minister for Transportation: "The GDR Transportation Policy--An Expression of the Growing Importance of Transportation as a Productivity and Growth Factor, and its Social Function in the Socialist Society"]

[Text] In the socialist competition honoring the 35th anniversary of our republic's establishment, all the people working in GDR transportation have met challenging obligations. Those employed in the GDR transportation system are very well aware of the close connection between the further organization of the developed socialist society, the achievement of economic tasks in particular and the struggle to preserve peace.

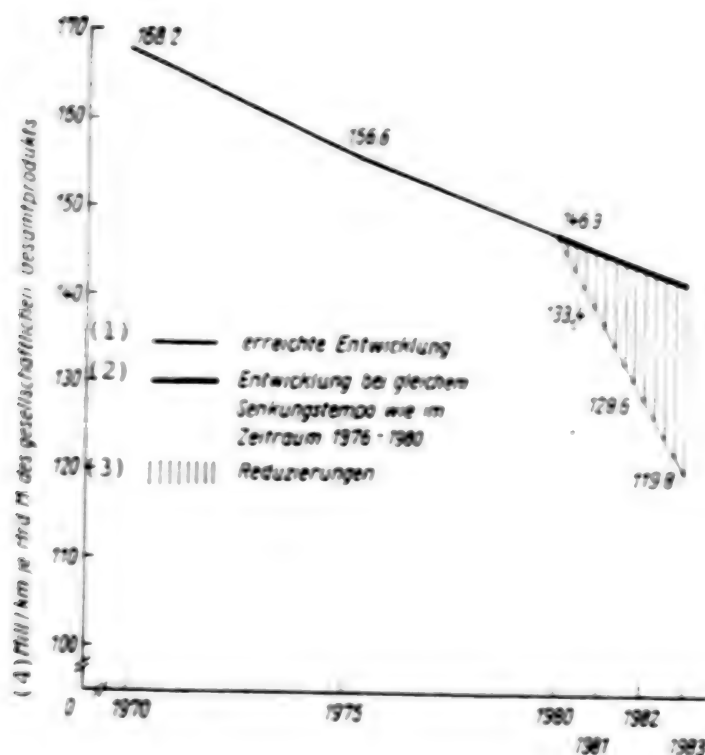
It is a priority objective of our integrated socialist transportation system in the 1980's consistently and with all our strength to back the continuing pursuit of the policy of the main task in its unity of economic and social policy even in the difficult international situation. This calls on us primarily for the stable satisfaction of the necessary transportation requirements at the least possible cost.

Typical for socialist transportation policy is its rising importance within the total state economic and social policy due to the increasing interlinking of transportation processes and the national reproduction process. In view of the dynamic development of the GDR national economy as well as increasing international cooperation and specialization, quantitative and qualitative challenges to the transportation system are also on the rise.

The transportation conception of the 1980's is designed to advance further toward the complete transition to comprehensive intensification in transportation, handling and production. It follows that we must significantly speed up the intensification of transport processes, achieve a substantial reduction in the specific national transportation expenditure in domestic freight traffic, further improve quality in passenger and freight transportation and, finally, carry out foreign trade transports at the least possible foreign exchange cost. Compared with the developed capitalist countries, the GDR enjoys a great advantage, because it has an integrated transportation system within which all branches of transportation cooperate. It is imperative

by planned division of labor between the traffic flows to enforce the nationally most advantageous proportions in the structure of the branches of freight transportation. This advantage of socialism enables and requires us most emphatically to steadily lower the national expenditure on transportation.

Development of the Specific Performance-Oriented Transportation Expenditure in the GDR's Inland Freight Traffic (price base: 1980)



Key:

1. Development achieved
2. Development at the same rate of reduction as in the years 1976-1980
3. Reductions
4. Million kilometers per billion mark of the total national product

The Standard Achieved in the Implementation of the Economic Policy of the Tenth SED Congress

We fulfilled the order given by the Tenth SED Congress--in the conditions of the steady growth of the performance of the national economy to carry less, across shorter distances and with less energy use. While the annual output volume rose by 4-5 percent, the following were the main results achieved with regard to the lowering of transportation expenditure in the years 1981-1983:

- Reduction of the volume of freight carried by 12 percent (122 million tons) and of the freight transportation performance by 5 percent (3.3 billion tkm [ton kilometers]), and
- Carrying out the transportation tasks in the public transportation system with 16 percent less diesel fuel, 42 percent less gasoline and 36 percent less fuel oil.

On this basis it was possible to lower 1983 specific transportation expenditure by 19 percent compared with 1981 (see Graph). The plan for 1984 provides for the continued pursuit of this development and the reduction of specific transportation expenditure by another 3.5 percent.

Significant progress was achieved with regard to the division of labor in domestic freight transportation in terms of energy conservation:

We were able to increase the share of the railroad. This development was made possible by efforts to primarily

- Raise the capacity of the railways,
- Purposefully develop and introduce highly productive transportation equipment,
- Ensure the greatest possible availability of freight cars, containers and pallets as well as engines,
- Improve capital equipment and materials management, and
- Increasingly use microelectronics and robot equipment.

The transportation performance of inland shipping was raised consonant with the geographic and economic potential of the inland waterways network. Important prerequisites were

- The more efficient use of existing basic assets,
- Adjusting the waterways network and port facilities to the greater demands,
- To further develop the technology of ship deployment.

Public motor traffic increasingly concentrated on its main function, local deliveries and distribution, including the carriage of goods to and from the railroad and inland shipping. Public motorized transportation is able to more efficiently handle some of the sales and procurement (road) transportation of factory traffic. The need consequently arose from 1984 to assign such services to public motor transports. In future, factory transportation will use its performance potential more for carrying production-related equipment.

To carry out the tasks of road freight transportation

- Existing vehicle stocks were used more intensively,
- More rational equipment was introduced for the further development of combined transports and the realization of optimum transport chains; additionally, as well as
- The management and planning of road freight transportation were perfected.

In general we have succeeded in even more consistently directing the transportation enterprises handling domestic freight to more favorable deployment in terms of energy and costs. A very visible manifestation is the shift carried out since 19812 of almost 30 million tons of freight from road to rail and waterways. The share of the railroad and inland shipping has risen to 79 percent of domestic freight transportation performance. At the same time we were able to reduce the more energy intensive road freight transportation performance by 31 percent. The railroad assumed the lion's share of the shifted freight; in 1981 this amounted to 6 million tons, in 1982 to 6 million tons also, and in 1983 to 12 million tons of freight.

The development of the freight volume and transportation performance as well as the division of labor among the branches of transportation is shown in detail in the table.

Development of the Freight Transportation Volume and Performances as well as the Division of Labor Among the Branches of Transportation (excluding marine shipping, Interflug and Deutrans)

(5) Verkehrszweig	(3) 1980		(3) 1983		Plan 1984 (4)		1984		(1) Arbeitsteilung in %		(2)
	Mio t	Mio tkm	Mio t	Mio tkm	Mio t	Mio tkm	t	tkm	1980	1983	1984
(6) Eisenbahn	31.8	56395	325.6	54884	335.0	54900	107.5	97.3	29.5 70.9	35.1 75.5	36.4 77.5
(7) Binnenschifffahrt	16.3	2139	17.5	2424	19.1	2350	117.2	108.8	1.5 2.7	1.9 3.3	2.1 3.3
(8) Straßengütertransport (ohne DEUTRANS)	729.6	21021	584.1	15378	566.1	13602	77.6	64.7	69.0 26.4	63.0 21.2	61.5 19.2
davon (9) - öffentl. Kraftverkehr	166.7	9739	141.7	7254	142.1	6402	83.2	65.7	22.8 46.3	24.3 47.2	25.1 47.1
(10) - Werkverkehr mit Kfz	562.9	11282	442.4	8124	424.0	7200	75.3	63.8	77.2 53.7	75.7 32.8	74.1 52.9
(11) Summe	1057.5	79575	927.2	72686	920.2	70852	87.0	89.0			

Key:

- | | |
|-----------------------------------|---|
| 1. Division of labor (percentage) | 7. Inland shipping |
| 2. Tons/tkm | 8. Road freight transportation (excluding Deutrans) |
| 3. Million tons | 9. Public motor transportation |
| 4. Million kilometer tons | 10. Factory traffic by motor vehicle |
| 5. Branch of transportation | 11. Total |
| 6. Railway | |

Satisfactory results have been achieved in recent years with regard to the rationalization of transport processes. The resources available for the modernization of the material-technical base were allocated mainly to the carriers using least energy. The sectional electrification of the

railways is therefore the most important rationalization measure for the needed improvement in the railway's capacity and the resulting reduction in transportation and energy costs. Compared with diesel traction, electric traction uses a third less energy. In addition, the energy used is supplied mainly by domestic raw brown coal; electric engines have greater starting power, better acceleration and last longer. They are also environment-friendly. The pass capacity of the sections rises by 8-12 percent, and operations are generally much more economic.

Since the Tenth SED Congress, more than 500 km railroad sections have been electrified; following 86 km in 1981, we will record more than 250 km in 1984.

By the end of this year, therefore, some 15 percent of the total rail network will be electrified, and these sections will handle more than a third of rail transportation.

Satisfactory results were also achieved in the development of combined transports. In the years 1980-1983, the more intensive utilization of transportation and handling facilities as well as the expansion of the large container stock enabled us to accomplish the greatest increase in performance since the introduction of large container traffic in the GDR.

A substantial contribution to the more efficient division of labor among the carriers by energy economic aspects was provided by an about 40 percent rise in performance, that includes the shift of 1.3 million tons from road freight traffic to large container transportation.

At the same time, the rational use of containers was very important for the rationalization of handling processes, savings of packaging material and the reduction of transport damage or loss. In 1983 alone M80 million profit was recorded as the result of packaging materials savings and the lowering of transport losses and handling costs.

The build-up of inland forwarding provided several varieties of collective load transportation for express packages. The inland forwarding sections of the transportation combines and the railroad have thus provided the economy with an alternative to direct road freight transport. We will have to resolutely carry on this development.

Also to be included in the positive balance sheet in this 35th year of our republic is the fact that we have resolutely worked for the widespread use of microelectronics in the important technological processes of the transportation system. In selected fields it was possible, for example, to create the conditions essential for the extensive use of microcomputer technology and secure the scientific-technological preparation required. In use at this time are more than 1,500 microcomputers in passenger traffic dispatch, transportation facilities, vehicles and robot systems. They contribute considerably to increases in labor productivity, energy conservation and the improvement of working conditions.

The working people in the transportation systems accepted this challenge of the 1980's. It will now be imperative to devote all our strength to

the efforts of having computer backed equipment represent the core of intensification in the energy, cost and labor time intensive technological sectors of the transportation system in the coming years.

The measures initiated since the Tenth SED Congress for the perfection of management, planning and economic accounting have effectively helped us increasingly well to cope with all processes of comprehensive intensification in the transportation system, too.

This objective was effectively assisted by the new freight transportation law, in effect since 1982, the new transportation prices for GDR inland traffic, introduced at the same time, and by a new transport planning procedure.

The new regulation of the transport duty in the new Freight Transportation Decree (GTV0) responds to the need to reduce transport expenditure to the level required by the national economy.

Planning of transportation services on the basis of production oriented transportation indices or norms allows us to exert effective influence on the lowering of specific transportation expenditure as well as to balance transport services with the available energy sources and transport capacities.

The inland freight rates introduced in 1982 serve better than the earlier ones to stimulate energy conservation in transportation, the reduction of transportation distances by optimization, the greatest possible utilization of means of transportation and the use of rational technologies.

The visibility of transportation costs in the economic accounting of combines and enterprises as well as their separate planning, reporting and supervision clearly demonstrate their effect on the cost/profit ratio. This factor strengthens the resolve of combines and enterprises to lower transportation costs.

The further pursuit of the main task in its unity of economic and social policy requires us just as urgently to smoothly develop passenger traffic.

Of particular importance in this context is the demand-appropriate assurance of adequate commuter and student transportation.

The traffic political conception in this field assumes the need first of all to improve the quality of travel, in particular punctuality and reliability, as well as passenger handling, service and information. The results and advances recorded are remarkable, but services still need to be better adjusted to our citizens' wishes for a better standard of travel.

Economic and social development is reflected in the increase in passenger traffic. In 1983, for example, 4.1 billion people were carried by public passenger transport. The transportation system carries an average of 11.3 million people per day. On the average each GDR citizen travels 8.7 km daily by public transport.

Transportation services have increased more rapidly because commuter distances have grown as the result of housing construction. Some of this is due to major socialist constructions, such as the development of new brown coal strip mines, new power plants and industrial plants, especially in the chemical industry. To be mentioned above all is the purposeful and much emphasized build-up of Berlin, the GDR capital.

The long-standing steady rate policy, reflected in low fares and generous concessions, is an essential element in the social policy of our party and state leadership. In 1984 the state budget is making available around M3.6 billion to guarantee stable and low fares in passenger traffic.

In addition to the low fares in urban commuter traffic, extensive fare concessions are granted in long-distance and regional passenger travel for season tickets, tickets for pensioners, students and the handicapped as well as workers' round trip tickets and vacation tickets.

In the past we have achieved improvements in passenger traffic. To be mentioned in particular are the extension of the network of intercity express trains, the improvement of the frequency of trains on selected sections and the expanded availability of passenger trains especially at vacation time.

The rising demand in public commuter traffic was met by the traffic connections provided for new residential districts. All means of transportation were involved in these tasks, consonant with regional factors. Priority was afforded in every case to electric commuter trains.

As regards regional passenger traffic, better coordination among the carriers served to further stabilize the supply by the effective generalization of the methods used by exemplary kreises such as Sondershausen and Kamenz.

Transportation Tasks in the New Stage of the Implementation of the Economic Strategy

The Seventh and Eighth SED CC Plenums established the criteria for the even more efficient accomplishment, on the basis of comprehensive intensification, of the tasks assigned transportation for 1984 and 1985.

In the conditions of intensively expanded reproduction it is imperative to achieve another consistent lowering of production consumption and, consequently, the improvement of the cost/profit ratio. Transportation is appropriately required to provide a growing contribution to the guarantee of the greatest possible increase in the national income and our foreign exchange balance.

In the foreground again is the reduction of transport needs as well as the deepening of the energy conserving division of labor in the transportation system.

With respect to the further lowering of transportation needs, it will be necessary, in addition to the optimalization of delivery relations, quickly

and widely to adopt production-transportation optimalization, in other words enforce transport need lowering measures in production with regard to the manufacture of products serving the design of technologies and processes.

An exemplary solution found for successful work in this field is offered by the 7 October (Berlin) Machine Tool Combine VEB. An exhaustive investigation carried out jointly by the combine and scientists at the Central Research Institute for Transportation as well as the Central Institute for Socialist Management at the SED CC, demonstrated that the specific transport expenditure of the combine could be lowered to 65 percent by 1985. Many separate proposals demonstrated in practical terms that some of the extensive cooperation relations among combine enterprises and with enterprises of other combines, that evolved in the past without sufficient attention to transport costs, were inefficient and need to be reevaluated. The disentanglement of transport intensive cooperation relations turns out to be a key issue for the lowering of transport expenditure in the metal processing industry. The extensive cooperation analysis carried out in this combine yielded the information that about 10 percent of cooperation relations might be avoided or organized more favorably in terms of transportation simply by improved production organization and without additional investments.

Another part of non-rational cooperation relations may be changed in the medium and long term. It is particularly important from the outset to consistently consider transport expenditure when arriving at decisions on new production assortments and chains of cooperation.

Consonant with a resolution adopted by the presidium of the Council of Ministers on the widespread application of this exemplary solution and the instructions by the Central Transport Committee, based on this resolution, it will now be necessary for all combines and enterprises to analogously and thoroughly analyze their entire reproduction process for more possible reductions in transport expenditures and set out the coordinated measures in management documents suitable for maintaining supervision and accounting. A good working base is offered by the "complex methodology for the reduction of transport expenditure in the enterprises and combines of the metal processing industry," drafted by the Central Research Institute for Transportation. This also calls for the greater utilization of the combines' scientific-technological potential and the employment of interdisciplinary study groups for comprehensive transport rationalization. The rationalization and greater efficacy of the management, planning and organization of transport work in the enterprises and combines represents a key factor for dealing with the frequently still persisting fragmentation, the lack of enforcement and standardization in the management classification of these assignments. To obtain a better quality of management for transport processes, the Cottbus GDR Railroad directorate was given the task to provide a model for the comprehensive optimalization of transport and delivery relations.

This task includes all the nationally needed transports required from the GDR Railroad and transport services within the GDR Railroad itself.

This model solution is to serve the reduction or elimination of non-rational transports, steadily lower transport expenditure and, above all, purposefully

further improve cooperation with the regional organs. Comprehensive intensification requires us to consider the production processes of industry and the transportation processes of the transportation system as a unit, and to investigate and more rationally arrange the chain production--transportation--handling--storage from the aspect of the national economy as a whole.

Great challenges confront the realization of technological processes in the new stage of the realization of the economic strategy. In the transportation system also, the new equipment must contribute to the greatest possible efficiency.

The perfection of the traditional technologies of the transportation, construction and repair processes allows for significant increases in efficiency and social effects.

That holds true for the further enforcement of energy conservationist division of labor among the branches of transportation, the handling of increasingly fragmented and combined transports as well as for efficient technologies of general freight transportation up to and including the technological measures needed to avoid transport losses.

Technological requirements on the rationalization of freight transportation and handling processes in the region grow alongside the nationally more efficient organization of the division of labor among the branches of transportation. Lowering the costs of transshipment in connection with the increase in broken transports, in particular, has turned into a crucial factor in the reduction of production consumption and the improvement of the quality of the freight carrying process. The expenditure for transshipment currently runs to about 10 percent of the national production consumption; only about 5 percent are accounted for by the public transportation system, 95 percent by other sectors of the national economy.

It is therefore necessary for rationalization conceptions to be drafted in districts and kreises, which will guarantee the more efficient utilization of material funds and the integrated management of freight transportation in the region.

The use of containers and pallets is gaining importance with respect to the rationalization of freight transportation.

It is the main objective of the perfection of container and pallet transportation even more extensively to rationalize transshipment, lower transportation times and thus speed up the circulation of merchandise.

At the same time this will help reduce the cost of packaging and decisively lower transport losses.

These measures are now being enforced in all sectors of the national economy. They provide for annual growth rates of 12-15 percent to be achieved for the use of containers in inland freight transportation.

The increasing integration of production, circulation and transportation processes has the result that the demands of the dispatching enterprises

on the quality of freight transports are equally increasing. However, the tasks of the branches of the economy, combines and enterprises for the observance of this quality and the continuity of freight transport processes are also on the increase.

This does not concern only the observance of the norms prescribed in the technological process, such as the loading and unloading times stipulated for the means of transportation, their full utilization and undamaged and punctual return. It equally affects the steady utilization of transport space on the basis of optimized transport and delivery relations.

The ongoing combination of traditional and novel technological principles and the rapid spread of modern technologies make it possible for the technological standard to be decisively improved and the efficiency limits of traditional technologies to be far exceeded.

The importance of the railroad as the most important branch of the transportation system is therefore growing year by year.

It is all the more necessary to seek for new approaches and solutions so that its capacity may be more rapidly increased and safety further promoted.

Excellent opportunities arise from the use of microelectronics and the highly effective change in dispatch and transport equipment linked with this.

Collectives of scientists, engineers, innovators and other working people from the transportation system, especially the railroad, are confronting this task with great political responsibility and commitment.

Consonant with the resolutions adopted by the party and state leadership, it continues to be imperative to convert important traffic technological processes at the GDR Railroad to the widespread use of microelectronics and, consequently, achieve generally greater rationality and efficiency.

In regard to the use of microelectronics, we concentrated first on the following developmental directions:

Microelectronics was effectively used in passenger handling processes with the aim of improving the quality of passenger travel as an important sociopolitical task.

As the first key goal, we managed in only 5 years (1979-1984) to carry through a program for the modernization of ticket sales. All stages, from basic research via development and transfer to production to countrywide use were completed in a very short time.

This year's output will enable us to equip with a total of about 600 microcomputer controlled ticket sales machines the more than 200 large and medium-size passenger terminals of the German Railroad (terminals selling more than 500 tickets per day).

Another key issue for the use of microelectronics is the control of train traffic. We have begun operating trials in the first computer backed dispatcher center for the supervision and management of railroad traffic. This will enable us to better control and direct train operations on a 280 km section (including feeder sections). Only two dispatchers watching color television screens now supervise the entire operation, and the location of all trains is brought up to date every 20 seconds. This should help us avoid delays, unnecessary stops and, consequently, unnecessary energy consumption, allow us to fully exploit the pass capacity of the sections and improve the safety of rail traffic.

In contrast to earlier conceptions, a significant advantage of this procedure consists in the fact that we can manage it without renewing the existing, efficient and expensive switching equipment while fully guaranteeing safety. This is achieved by the use of microcomputers at the switching points; these record the data on train movements and forward them to the central computer. We have thus created a qualitatively new generation of a computer backed dispatcher system and will subsequently connect other sections to it.

A third key is the enforcement of energy conserving operation in suburban and commuter traffic. Up to the 35th anniversary of our republic, 225 on board microcomputers were installed on the trains of the Berlin intra-urban electric railroad. They are achieving an about 10 percent lowering of specific energy consumption, corresponding to the total energy consumption of a residential district with more than 10,000 residents.

The use of robot equipment represents the fourth main line of our work. In adaptation to the specific tasks of our economic sector, we have developed an introductory policy directed mainly to freeing manpower and eliminating heavy and hazardous manual labor. Successful examples are (among others)

- The robot complex for the automated unloading of potash cars in the Wismar overseas port,
- Robot complexes made up of microcomputer controlled rail brakes; these enabled us to eliminate the heavy labor of the brakeman in our switching yards,
- Automated transport systems on the basis of track traveling electric tractors; these speed up general freight transshipment on the eastern freightyard of our capital,
- Welding robots in the Unity (Leipzig) GDR Railroad repair plant; this has helped raise labor productivity in freight car construction.

These examples clearly show that the GDR transportation system confidently confronts the challenges of the technical revolution of our age and makes microelectronics and robot equipment serve the increase in the capacity of the transportation system.

It will be necessary significantly further to increase the pace in this strategically important field and consequently generally speed up the practice effective transfer of scientific-technical perceptions.

The improvement of the smooth flow of transports, construction and repairs, industrial manufacture and supply processes offers a significant reserve for the rise in capacity and efficiency. The existing transportation, construction, repair and production capacities must be evenly utilized during the entire month, the entire week, the entire day.

The sharp drop in loading services at weekends must be eliminated by cooperation with all those involved in transportation.

The reserves to be developed are extremely important at the national level for the improvement of capacity, the lowering of costs and, consequently, the increase in the national income.

The dynamism of GDR foreign trade relations is reflected in the fact that international freight transports have more than tripled by comparison with 1960.

The transportation system is confronted with the task of guaranteeing the transport services required for the realization of foreign trade contracts at greater foreign exchange efficiency and the best possible quality.

We accordingly initiated measures to develop capacity reserves at much used border depots as well as at feeder lines, provide greater pass capacity for transit sections and ports, perfect transport equipment and make available in greater volume and at better quality and efficiency adequate transport equipment for the use of our exporters.

About 70 percent of GDR foreign trade proceeds with the CEMA member countries. Almost 80 percent of the GDR's transport services to and from these countries are accounted for by export and import relations with the USSR. In future also, the decisive part of our foreign trade relations with the USSR will be stable and secure in the long term.

Since 1982 we have been working at the greatest (so far) integration project in the field of transportation between the GDR and the USSR. The establishment of a ferry connection between Sassnitz-Mukran and Klaipeda will substantially improve the efficiency of foreign trade transports between the USSR and the GDR and make sure of the proper transport facilities being available for the growing extent as well as the standard of specialization and cooperation of production.

The railroad will be confronted with greater demands on handling the prior and subsequent transports involved.

The terms of the service exports of the GDR's transportation system are changing consonant with developments on foreign markets. We must first of all increase the freight volume carried in transit via the GDR's rail network. To do this, we must develop new kinds of services and improve the quality of existing ones. Special efforts are needed in marine shipping. We will have to employ equipment suitable for handling the growing use of containers in general cargo traffic. That applies in particular to scheduled shipping.

Much greater demands on the realization of foreign trade relations will arise also for road transport and inland shipping. These branches of transportation must steadily improve the handling of the increasing foreign trade transportation requirements both in terms of speed and quality.

The challenging tasks arising in public passenger transport, due to economic and regional development, will call for the even more rational and demand appropriate use of all means of transport.

In other words, a definite improvement in quality standards must be achieved at the least possible cost by the utilization of existing vehicles and plant as well as by the purposeful deployment of investments. We are emphasizing the use of electric means of transport in order in passenger traffic also to respond to economic requirements by the replacement of liquid fuels.

In order to further improve the quality of passenger transportation, it will be necessary steadily to better transfer conditions between long distance, regional and commuter traffic, coordinate schedules and guarantee connections. To be expanded at junctions are such services as the coordination of the various carriers and information for travelers when schedules are not kept, modern ticketing equipment able to issue tickets for several carriers, storage and handling of baggage and welfare facilities. This also includes the demand appropriate supply and improved coordination of taxi services both at depots and in urban residential districts. In the coming years also our efforts must focus on the definite improvement of quality. Special attention must be devoted to improving the network of fast trains. Also to be improved is punctuality in commuter and long distance travel. Vis-a-vis private car travel, local public transport facilities should be privileged, in particular by the organization of traffic.

The key issue of traffic policy is the improvement of public passenger traffic in Berlin, the GDR capital. Most important is the development of transportation in Berlin-Marzahn, a new district, which will be largely completed in 1984, the inter-urban electric railroad extension to Hoenschoenhausen and the rapid transport connection with subway parameters to the Kaulsdorf/Hellersdorf residential suburb as well as the further improvement of the attraction of local Berlin transport services generally.

More is involved, therefore, than primary development measures. The resolute fulfillment of the resolutions on the further development of our capital also requires active support from all collectives of the transportation system.

Exceptionally great challenges arise for the GDR Railroad, for example, from the necessary guarantee of adequate commuter train services for construction workers traveling to the capital from other districts and the additional transports of building materials and prefabricated sections for housing construction.

Raising the National Efficiency of the Transportation System

Future developments are dominated by the task that intensification as the main approach to the development of social reproduction must be comprehensively

adopted by the transportation system as a whole. This task is characterized by the need for specific energy and materials consumption to drop faster than output grows, for the growth of labor productivity to exceed that of production, and for labor productivity to rise faster than basic asset equipment per worker. An important basis for all this is the provision of such conditions as will allow the full effect of science and technology to be genuinely effective for the reproduction process of the transportation system, too.

Comprehensive intensification is crucially affected by the development processes

- Of the resource conserving growth of passenger and freight transportation services in accordance with social and economic requirements, in particular with respect to the consumption of transport energy,
- Of nationally energy and cost saving division of labor in passenger and freight transportation, and
- Guaranteeing and stabilizing services with respect to foreign trade transports.

The requirements of intensively expanded reproduction are met by lowering the percentage of production consumption in the gross output of the transportation system. The ratio of net production to production consumption is improved thereby. The more rapid growth of net production to be achieved in future represents the growth of efficiency in the transportation system. The main approach to lowering production consumption in the transportation system consists in the reduction of the consumption of energy, materials and productive performances.

By cutting transportation processes, the transportation system contributes to the lowering of circulating assets within the framework of the national economy. The losses to the economy arising from transport damage must be definitely reduced in cooperation with the other branches of the economy. The provision of increasing coincidence between the social requirements on transportation and the capacity of the integrated socialist transportation system is both the prerequisite and objective of the improvement of economic efficiency in the transportation system.

The best guarantee for achieving our ambitious goals is offered by the results and experiences of our operations in the 35 years of our socialist state with which the working people of the transportation system are intimately linked, and for the further consolidation of which they will continue to do everything in their power.

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CSO: 2300/106

PROGRESS OF NEW POWER LINE PROJECT FROM USSR TO POLAND

Warsaw TRYBUNA LUDU in Polish 15 Oct 84 p 3

[Article by Ryszard Zatorski]

[Text] For an observer, it is a fascinating sight when a steel colossus "stands on its feet" like a drawbridge lifted up by taut lines fastened to slowly moving caterpillar tractors. For those performing those actions, these are a dozen or so minutes of total concentration and a precise execution of tasks according to a precisely drawn plan.

Boleslaw Koscielniak, the director of the Krakow Elbud Electric Network Construction Works, explains that every such operation is preceded by a whole day's work.

"The poles in Poland's first 750 kilovolt line look like skyscrapers (42 meters tall) in a housing colony of one story houses, as compared with those in which electricity flows to Budomierz, a border village in Przemysl Province."

Edward Pietras, a lineman servicing the anchor clamp for joining the conductors, points at the cross-section of the aluminum-steel weave that is nearly 4 centimeters in diameter. He has not mounted any yet, although he has already worked in this trade for 25 years.

Wiktor Lakomski, the deputy director of the construction, which has its base in Koniaczow near Jaroslaw, explains:

"All this is prototypical; the elements of the poles are produced by one of the plants of our enterprise in Krakow. The technology is different, because until now there were no lines with quads. This dictates the size of the pole, because the tension is higher. A chain of four conductors with insulators weighs 1700 kilograms, and three of them are suspended from each pole, one for each phase."

A Meeting of Constructors

A moment earlier a crew member, Edward Baran, guided the tightening of the conductors, measured the size of the overhang--as the vocational jargon calls

it--signaling remarks to the operators of the tractors by means of a radio. Below, other crew members were cutting steel hoses, assemblingappings and forming a chain. After a while, it was lifted up and the first conductors joined two poles: one standing on the Soviet side, on the meadows of the Gruszewo kolkhoz, and one on the Polish side, on the fields of the state farm in Budomierz.

Even though it was one of many similar operations performed by the specialists of Krakow Elbud in the construction of the 750 kilovolt transmitting system, this moment had another emotional significance. Here, on this job, one of the elements of an integrated power system of the COMECON countries, Polish and Soviet builders met.

For Yosef Ivanovich Kachor, the Soviet director of the conductor assembly, and for Bogdan Stepanovich Zuban, this is just one of the many constructions of the same type in their professional careers which have spanned over 20 years. In their country there are many "seven hundred fifties." Asked by Polish colleagues, they talk about it. They also recall other working meetings of the past, when the 220 kilovolt line was built from Zamosc to the border.

Seems Like the Same

"One can always use more experience," interjects Edward Baran, who can hardly be called a novice in this trade; the same for Edward Bieniasz or wireman Edward Pietras. The latter two say that for nearly a quarter century they have lived "on the road," and remain unmarried because "what woman would want a man who's never home."

Crew member Baran joined Elbud in 1951, leaving his home in Sieniawa, where today a line built by him passes nearby. He began with the electrification of villages, and moved on to work permanently on industrial lines of the highest voltage. He participated in the construction of the first "one hundred volt-age" from Nowa Huta to Jaworzno, and on the second, similar one, he got married. He was also at the "four hundred" from Turoszow to Czestochowa. For eight months he built in Iraq. Now it is Poland's first "seven hundred."

"Everything here is bigger and heavier," he says, "although the work is similar to the one in the previous constructions. It is interesting, different than in a factory, because one is under a naked sky day after day, working at a piece rate. Earnings depend on the work and skills, as well as on nature, the weather and the conditions of the work. I also have satisfaction when I see my "monuments," many of which are standing in Poland. I was lucky always to be where something new and unique was being done, as, for example, building a line on the Zar mountain, which ran along the slopes, without cutting out trees, and where besides the traditional equipment, helicopters were used. One remembers such jobs for a long time..."

An Obvious Advantage

In this way power and energy will be transmitted from the Soviet Union to Poland already next year. After 1987, the Polish power grid will be supplied by 1000 megawatts from the Chmielnicki Nuclear Power Plant in the Ukraine.

Other participants in the common COMECON enterprise are Czechoslovakia (600 megawatts) and Hungary (500 megawatts). At the same time, the GDR will have an intrasystem effect from this transmitting system; that is, the possibility for emergency use of Polish power without making additional installations in its power plants.

The costs are borne jointly. On the Polish side the direct and general executor of the investment is the Power Engineering Works in Rzeszow. As the director-in-chief, engineer Jan Swietoniowski, informed us, the total of the enterprise will cost the Polish side 11 billion zlotys. This is the price of the 114 kilometers of the transmitting line of 750 kilowatts from the state border to Widelki near Rzeszow.

A second important element of this transmitting system is being built: a transmitting-distributing station of 750/400 kilovolts with an in-coming power of 2500 megavolt-amperes. This also requires the construction of an additional grid, and presently a 100-kilometer segment of a 400-kilovolt line from Widelki to Tarnow is being built, among others.

Part of the power received from the USSR will also be transmitted on the 110 kilovolt lines for the purpose of supplying the nearest regions (Rzeszow, Krosno, Przemysl, and Tarnobrzeg provinces).

"In a word, this transmitting system is to help stabilize our country's power balance. In order to obtain 1000 megawatts," stresses Director Swietoniowski, "we would need a medium size electric plant, more costly to build, which would require coal, a transportation system, waste storage, and would emit tons of polluting dust."

In building this line the criteria have been tightened. Among other things, the conductors are suspended very high in order to limit to the maximum the harmful action of the electromagnetic field force, which will amount here to 10 kilowatts per 1 meter. At a similar line in Hungary, the index of 15 was adopted. Farmers from Przemysl and Rzeszow provinces, for whom the Power Engineering Plant in Rzeszow organized a trip to Hungary, could assert that fields under these conductors were cultivated normally. Of course one cannot stay all the in a 120-meter belt, and there was a need to transfer three farms, in order to avoid such danger.

Currently the construction of the line is nearing its end. Work in Widelka is also advanced. Part of the 400 kilowatt switchboard already works under voltage. The primary part of the 750 kilowatt switchboard is also in the final stage of assembly. The Soviet equipment is being mounted under the supervision of specialists from the USSR. The secondary circuit remains to be done.

"At the same time workers for servicing and exploitation of the new equipment are being trained in Hungary and the Soviet Union," emphasizes Director Swietoniowski.

12270

CSO: 2600/140

LIGHT INDUSTRIES CHIEF OUTLINES MODERNIZATION PLANS

Warsaw RZECZPOSPOLITA in Polish 23 Oct 84 p 2

[Interview with Eugeniusz Zarzycki, deputy minister of chemical and light industries, by Ryszard Nalecz of the POLISH PRESS AGENCY: "Modernization Offers a Chance of Increased Output in Light Industries"; date and place not specified]

[Text] Except for a few items, output of consumer goods remains below the level of public demand. In order to counteract the continuing deterioration and improve supply to the markets, many decisions have been made. In particular, in February of 1983 the Government Presidium adopted the decision on intensification of production in light industries. The implementation of that decision was discussed at a recent session of the Government Presidium. A correspondent of the POLISH PRESS AGENCY [PAP] has interviewed the deputy minister of chemical and light industries, Eugeniusz Zarzycki, on this subject. Here are the highlights of this interview.

[Answer] Our program covering the period up to 1986 includes provisions for a substantial increase in the output of consumer goods, especially those in the shortest supply. Most increases will come from modernization of cotton and wool mills and textile factories, although important effects are also expected from organizational steps based on the principles and mechanisms of the economic reform. The investment program that is based on the decision of the Government Presidium contains about 100 assignments to be realized by the enterprises, and centralized investments; the total allocations amount to some 30 billion zlotys, including 19 billion for purchases of machinery.

We believe that the modernization efforts thus far will make it possible to increase already in 1984, compared with 1982, the output of cotton and similar fabrics by over 100 million m; wool and similar fabrics by 10 million m; and the production of clothing by 30 million articles, socks by 27 million pairs and footwear by 20 million pairs. It should be mentioned, however, that the output level envisaged before the end of 1984 in most categories of products will still be below the levels four years ago. The only exception is leather and leather-substitute footwear, where the output will be greater by 12 million pairs than in the respective period.

The greatest difficulties are involved in purchase of domestic machines and equipment. Producers of textile machinery have their own difficulties, mainly as regards cooperation and labor shortages.

As regards contracts for supply of machines and equipment from CEMA nations this year, it should be stressed that they meet the basic needs of our industry.

As far as machinery purchased for hard currency is concerned, until lately we had only funds remaining at individual enterprises to cover these costs, but lately we have been given an allocation of currency quotas from central funds which enable us to place more machinery purchase contracts.

9922

CSO: 2600/111

IMPACT OF ZLOTY DEVALUATION ON FAZ TAX COMPUTATION

Warsaw RZECZPOSPOLITA in Polish 23 Oct 84 p 2

[Communication from the Polish Press Agency: "Change of Currency Rate of Exchange and Production: A Communication From the Ministry of Finance"]

[Text] In conjunction with inquiries as to whether the alteration of the basic rate of exchange on Sept 1, 1984 for Western currencies will affect the calculation of net product sales and also sales in sale prices which are used to calculate the contribution to the State Vocational Activization Fund [FAZ], the Ministry of Finance explained that the effect of these changes is eliminated according to the principles formulated in Articles 10 and 11 of Circular 5/KS of the Ministry of Finance as of Apr 11, 1984, concerning the guidelines for calculating the net sales of products and gross sales established for evaluation of contributions to be paid into the FAZ (the Official Journal of the Ministry of Finance No 5, Item 13) with the following modifications.

The value of products sold after Sept 1, 1984 for export into nations of the second payments sphere should be calculated according to the transaction price by using the factor of change in the rate of exchange accurate to at least the first decimal place, according to the rates of exchange table 8/84 of Feb 20, 1984 (numerator) and 36/84 of Sept 1, 1984 (denominator). This conversion is not done if the settlement prices for export have been modified.

The cost of materials imported from the second payments sphere and utilized after Sept 1, 1984, is reduced--before conversion--by the value of the amount of these materials on inventory record as of Aug 31, 1984.

The changes are done according to Circular 19/KS of the Ministry of Finance of Oct 16, 1984, which was issued to replace the circular concerning the calculation of net worth of sales and value of sales for estimation of contributions to the FAZ.

The new circular will be promulgated shortly in the Official Journal of the Ministry of Finance.

9922

CSO: 2600/111

SULFUR PROCESSING PLANT SETS EXPANSION PLANS

Warsaw TRYBUNA LUDU in Polish 16 Oct 84 p 3

[Article by (wik): "Sulfur--the Polish Gold: An Improved Exploitation of Deposits at Grzybow"]

[Text] Carbon disulfide mill at the Siarkopol Sulfur Mine in Grzybow has been in operation for five years. According to the director of the mine, Dr Eugeniusz Gutman, the output since 1979 was 561,800 tons; 78 percent of this amount is exported.

This made it possible to repay a debt incurred because of license purchases in France. The mill sells carbon disulfide to several nations, including the FRG, France, Yugoslavia, Belgium, as well as to the socialist countries GDR and Czechoslovakia.

Although the compound is inflammable, no serious accidents have been reported. This is to the credit of the working crew, which mainly consists of young workers who come from various parts of the nation. Three hundred apartments and a new preschool have been built for the workers in Staszow.

The top priority at Grzybow is expanding sulfur conversion to carbon disulfide. According to the mill director, in the coming years there are plans for building experimental installations for production of sulfur insoluble in carbon disulfide and fluid hydrogen sulfide. These products are important for our national economy at the present time but are imported from capitalist nations.

9922

CSO: 2600/111

AMPLE COAL STOCKS FOR EXPORT, POWER INDUSTRY

Warsaw TRYBUNA LUDU in Polish 19 Oct 84 pp 1, 2

[Article by Stanislaw Zielinski: "Ample Supply of Coal Does Not Abolish the Need for Economy; There Are Large Supplies in Trade and Power Production; Output Plans Overfulfilled"]

[Text] It is hard to tell whether the coming winter will be harsh or mild. The thrifty managers are preparing for the worst. For that reason, there has been movement at fuel warehouses as industry and heat and power production are stocking up. The question now is: Will there be enough coal, this basic energy resource?

The Katowice Weglozbyt enterprises gives a definitive unequivocal answer: there will be no shortages of coal, either for production or for export, or for meeting individual needs.

In effect, market supplies will be better than in 1979, when mining produced record amounts of over 201 million tons of coal. For instance, at that time the warehouses of two major distributors--Fuel and Construction Material Trade Enterprises and the Farmers' Self-Aid Central Cooperative Union--totaled 678,000 tons, while in the same period of 1984 it attained 2.6 million tons.

The situation is also favorable in the industry. The current coal supplies by the end of September (including the power production industry) totaled 14 million tons, while five years ago it was below 9 million. In heat production, in comparison with 1979 the fuel supplies before the coming winter have almost tripled.

Such is the situation with reserves. This supply is sufficient for uninterrupted energy production for at least a month and in communal heat supply plants for almost five months. However, in the fourth quarter of 1984 there are plans for additional input--into industry and energy production--of about 28.3 million tons, as well as 4.5 million tons to the market and about 700,000 tons of coal for heat production. At the same time, consistent efforts have been undertaken so that, before the end of the year, the heat plants in individual provinces could equalize the status of their supplies (and, respectively, utilization), because in this area certain disproportions are observed.

The miners are working productively and rhythmically, as evidenced by the fact that the current annual output plan will be overfulfilled by about 1

million tons. In addition, the warehouses of the coal industry already have over 5 million tons of coal, which can be distributed when necessary.

Maintaining the export of coal at a high level will remain an economic necessity for a long time. Domestic consumers in the meantime will be putting in increased demands for consumption of energy in various forms. The need for a frugal management of our national wealth thus may become acute. We should think about it even today. Let no one be complacent about the fact that we will carry through the winter ... maybe even to spring.

9922

CSO: 2600/111

BRIEFS

REFORM INFO SHARING WITH PRC--A delegation from the Academy of Social Sciences of the PRC paid a visit to Poland from 29 October to 19 November at the invitation of the Main Board of the Polish Economics Society. This visit was intended to provide an opportunity for representatives of the Polish and Chinese community of professional economists to share their views and experiences concerning current conditions affecting the Polish economic reform effort and the changes currently taking place in the PRC economy. The members of this delegation met with representatives of the Polish Economics Society Main Board and also paid visits to the society's provincial chapters in Krakow, Poznan and Rzeszow. In all of these centers, meetings were arranged with society officials and representatives of professional groups working in various business enterprises and institutions. This visit created a climate that will be conducive to promoting cooperation in the field of economics. Decisions were made calling for, inter alia, the setting up of a permanent arrangement for exchanges of professional literature, the encouragement of efforts to have the most valuable contributions to this literature translated, and promoting knowledge about the economies of both countries. It was acknowledged that it would be useful to publicize both the theoretical advances and the practical problem-solving measures that have been applied in the course of the drive to reform both economies. [Text] [Warsaw ZYCIE WARSZAWY in Polish 21 Nov 84 p 2]

CSO: 2600/244

GLIGOROV DEPLORES IMPEDIMENTS TO SMALL BUSINESS

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 24 Sep 84 pp 20-23

[Article by Kiro Gligorov, member of the Council of the Federation: "Fear and Dogmas"]

[Text] Why is it that excesses are attributed exclusively to small business when even the leading economic organizations of Yugoslavia are not immune to them, and why is it that these particular exceptions in the small business sector are used as the basis for the argument that it is necessarily antisocialist? That is one of a number of questions posed and directly or indirectly answered by Kiro Gligorov, member of the Council of the Federation, and, as Professor Stjepan Han, who chaired the 2-day conference on small business in Serbia, put it, the architect of the economic stabilization program. We are publishing Gligorov's introductory address at last week's conference with minimal editing and the insertion of titles and headings.

Much is being said about small business, it is being written about, and symposiums are being held. A number of books have already been published which present the facts and figures on the small business phenomenon and its lag in our country. Aside from that, there is no party or government document of any significance which does not give a definite place to the importance of small business. Certainly the most important document in this regard is the Long-Range Economic Stabilization Program, which in its Basic Premises and Concluding Section and also in a separate paper gave a distinguished place to small business, acknowledging it to be a strategic, structural and fundamental issue whose resolution has the most direct consequences for the successful development of the economy, for creation of new jobs and for development of the system of self-management itself.

In spite of certain results and progress, however, the development of small business has been proceeding at a snail's pace. There is an obvious disproportion between the declarations on how necessary it is and everything that has accompanied that declared policy in the sphere of practical realization--from the top to the base of society. Why is that the case? What is this syndrome that has been created in connection with small business which we cannot correct?

A cold and objective analysis would have to start by reassessing the very orientation toward comprehensive and more rapid development of small business. Have we not perhaps made a mistake here, overestimating its place and importance in our context? We must, then, address the question of whether the objective conditions and needs exist which unambiguously necessitate the development of small business. Some people might think this superfluous, since there is no need to prove what has been established many times and especially confirmed by world practice from the most underdeveloped to the most highly developed countries. Yet if we acknowledge the fact that everything that figures as an economic phenomenon must be placed and elucidated in our own context, under our own social conditions, then a brief capitulation of the reasons for the most comprehensive possible development of small business might be as follows:

First, the economy is a complicated mechanism, a large system which cannot live and function if it consists only or largely of large organizations--in production, in distribution and in all service activities. Its productive capability does not lie only in the major producers, but also includes many small and medium-sized connecting links for both technical and technological reasons and also on economic grounds. Only that kind of comprehensively developed division of labor affords the optimum with respect to scale, quality, diversity and the distribution of production costs. Human needs, which are growing every day and becoming more diverse, cannot be covered and satisfied by big producers working in strictly determined production lines and with a restricted assortment. Moreover, we are far from being able to satisfy all needs through factory production. Many things remain which demand individual creation and the work of craftsmen. Which is not even to mention services, whose domain is also getting broader every day. In this sense we can say that small business is an organic need of the entire economy, one of its essential structural components, and that moreover a lasting one. That is, there are still those who believe that small business is the offspring of the transitional period, of our insufficient development, a concession to something which is not our future, which is a relic of the past, and so on. What is to be said, however, about the phenomena engendered by scientific and technological progress in the branches of the economy which have the greatest thrust forward (take microelectronics, for example), where small organizations, even work teams and individuals, become an extremely dynamic factor of development without large production buildings, an enormous infrastructure, concentration at one site, and so on. Isn't this one of the major reasons for the crisis in the conventional industries, which have necessitated enormous concentration of capital, equipment and people. In short, small business should not be looked upon solely through the experiences and prism of the past and its unquestioned contribution to economic development in past decades, but through that of its place and role in the present and future technological and economic boom in the world.

Second, the principal characteristics of the available factors of production in our economy is the abundance of unutilized labor and the scarcity of available accumulation or social capital. Not a single economic or development policy can overlook or neglect this fact. The concentration of investments on large-scale investment projects of a capital-intensive nature can bring

progress, but at the price of underutilization of the available human resources and an overriding demand for efficient use of capital concentrated in that way, which is a big problem in the inadequately developed countries. It is no accident that we have had difficulties activating giants of that kind, as indeed they have in many other developing countries. How are we to solve that difficult contradiction in the differing availability of the factors of production in our economy, and at the same time have a realistic prospect for a rise of employment and the fullest possible use of the available labor, especially skilled and trained labor? That task cannot be performed without small business. Let us look at what our own experiences indicate.

When gross investments have a share of 40 percent in the social product, which has been typical of the last decade, and investment has been high throughout the postwar period, it was not possible to come even close to solving this problem satisfactorily. In part this is certainly a sin of the system in which unwise investment is a regular phenomenon, but that is not the whole thing. Even abundant use of foreign capital could not essentially help in solving this problem more successfully. A million unemployed, almost the same number abroad, and at least 1-1.5 million employed but redundant in the economy in view of its technical and technological structure are sufficient evidence that this is not a way of creating jobs for the unemployed and those who will be leaving school and will in general come of age for work as further changes take place in the economic structure and social composition of society. The mistakes, then, are both in the system and also in development and economic policy, which at all levels has been oriented toward putting a cheap value on a scarce factor of development--capital--and the neglect of the available labor as an abundant factor for faster development. The unrealistic valuation of the factors of development and their inefficient use has resulted in a lower growth rate than was realistically possible and a lower growth rate of employment than was possible. That is, this tended to worsen one of the most important parameters of economic and social stability--unemployment. In view of the character of our community, which is based on socialist self-management, this conclusion has particular weight.

In this light and without drawing upon many other important arguments, small business displays its advantage as a factor which utilizes the factors of production in inverse proportion to the large-scale economy--it requires much less investment per unit output and absorbs a considerably larger number of working hands.

Everything that has been said, more as a sketch and suggestion, indicates that the larger role of small business has deep foundations in the experiences of our development and in the needs of development as they have been examined up to the year 2000. However, this orientation requires consistent execution of the changes envisaged by the long-range economic stabilization program both in the domain of the economic system and also in development policy and economic policy. At the same time, there must be nothing to hinder the forward progress of practical action which will utilize people's interest, their initiative, the available resources, and the strength of the socialized economy and direct it toward intensive expansion and development of small business.

Why the Dilemmas and Resistance

Let us go back to the beginning. If the social commitments are clear and unambiguous, and the objective conditions and need for development of small business are beyond doubt, why the snail's pace in its development, why the dilemmas and hesitation, which has not been small or marginal, but have often broken out in the press and journalism in the form of fierce polemics and opposed views, the latter so intransigent that it sounds the alarm, warning that the development of small business will threaten the development of socialism and the self-management character of our society, that it will bring about stratification and class differentiation in our society, that we will go back to the bourgeois concept of development, and so on. Let us take as just one example the sharp opposition of views in the BORBA round-table debate concerning small business and the polemics behind it, which are not over. If that is one side of the thing, and the other is that in practice, through the silent resistance of various agencies with powers related to various permits, facilities, credit, tax measures and other things, what is done, it seems, is done only by way of paying tribute to the proclaimed policy, but nothing beyond that, all of which is accompanied by various warnings, excuses and inventories of the problems which make it impossible to move more broadly and bolder in creating the conditions for development of small business.

In the first place the socialized economy itself is not sufficiently interested in small business. This applies not only or mainly to cooperation with small business operating with private means of production, but also to the creation of small business and conditions for it within the socialized sector itself. The reasons for this lie in the fact that it continues to be underestimated, but there are also objective difficulties it faces today, which orient it toward the most urgent issues of its own survival. The changes in the economic system are halfway measures and still do not suggest the importance of cooperation and division of costs with small business, the market is still not its principal preoccupation, so that it does not even see the benefit which small business could offer in a flexible adaptation to market conditions, and so on.

Until economic coercion is operative to bring about the pooling of labor and capital by the groupings which are developing electronics, telecommunications or producing machines and equipment, what is to be said about the interest of the public factor in collaborating with small business? If the first steps have been taken--and this fact is evidence of it: a search is being made for those products and parts of products which can be turned over to the small producer, and that is already a step forward. But even this is sporadic, in the way of fairs, rather than an everyday need and action by large-scale organizations. The material basis for this would be created quite rapidly if the existing organizations began to free themselves of unnecessary means of production, relinquishing them or selling them to small new organizations in the socialized sector and making it possible for individuals or associated individuals to create small workshops, cooperatives, etc., so as to equip themselves for the subcontracting type of production.

Small business, then, should expand both in the socialized sector and in the private sector, but this requires a change in the developmental orientation of

many, I would say the overwhelming majority, of our communes. The gravitation toward large projects whose construction is conceived as offering an economic transformation of the opstina and a solution to its key problems, especially employment, is usually based on illusion. Development and especially employment are achieved only by comprehensive stimulation of all forms of economic activities from the most modest to the largest, when there exists the absolute economic justifiability for those large ones. Even a superficial examination of the development of our opstinas, that is, shows that the highest percentage of employment of the population and the largest growth of per capita income have occurred in places where they have made maximum use of the factors of production through that kind of policy of utilizing all opportunities, their own resources, through gradual development from the lower to the higher phase of production, from the small to the larger production unit.

Small business, then, should not be hampered and neglected in either the private or the socialized sector, since neither is competition for the large-scale economy, but a complementary part of it. And if some small producer happens to have the ability to compete with a large one, then that is the best sign that the large ones must change, must go forward. That would then be a sign that we are heading toward overall economic and social progress, rather than stagnation or a drop in productivity and impoverishment of the market.

The Large and the Small

I will make a slight digression, but it might help to shed light on some of the aspects of our political ideology related to our system and especially to small business. That is, when we talk about our largest organizations, which have to confront the multinational companies and in general large organizations, concerns, etc., on the world market, we rightly emphasize that we are in an unequal position, that it is difficult to deal with them, that much of that must be sacrificed in order to succeed in that unequal dogfight, while at home some people see small business as a danger to the prosperity of the large organizations. Or again, we accept the phenomenon of the so-called "gray" economy, which is operating outside all regulations and is expanding every day, as an inevitable phenomenon under the present conditions of low personal incomes, the unsatisfied demand for services, and various shortages which have become a regular thing. But lawful work in various forms with privately owned means of production is constantly suspected of contributing nothing other than being a source of easy enrichment, accompanied by warnings about where our society is going if it is given further encouragement. It is, of course, true that some people are getting rich easily and there is speculation, but why not ask ourselves whether those things are not stimulated precisely by the restrictive attitude toward that activity, that is, by the monopoly which necessarily comes about when necessary human needs cannot be met in the regular way. Whenever a situation like that prevails, the phenomena are the same in both the small and the large organizations in the socialized sector. The concealment of goods until the prices go up, the raising of prices out of line with the social criteria, selling for foreign exchange and speculations of various kinds, are not foreign to even the largest of our well-known producers. The problem, then, lies elsewhere--in creating conditions so that this does not occur through economic measures, everything

envisaged by the long-range program as key changes. Under economic and market conditions that are at all stable the small-scale producer will have to work hard and fight for every customer in order to get back the labor and capital he has invested and to survive.

There is, of course, no question of any idealized conception of an absolutely stable equilibrium of the economy, which does not exist anywhere, but of a lasting orientation of society toward solving economic problems with economic means, so that it does not fall captive to inertia and the strength of a long-lived economic practice, statism and government interventionism, which reserves for itself the right to deal out social justice.

This necessitates, of course, that an up-to-date tax system and tax administration be created that is capable of carrying out the policy of restricting social differences without throttling successful work and development. In this connection we must discard certain mistaken ideas to the effect that the tax system and tax administration are something on the margin of social organization, since in a socialist society it is not possible to realize income that would bring about unacceptable social differences. The consequences of that conception are quite astounding. All taxation to meet the needs of society is concentrated on the socialized sector; this is done automatically through the social accounting service; for sociopolitical communities this is such an abundant source that anything else seems to them a trifle which they need not be concerned with on economic grounds, but rather only to pursue those who realize large incomes in unlicensed establishments. In this way the entire tax policy ceases to perform its economic functions and is turned into a repressive service that costs quite a bit, and provides little.

We have to look upon tax policy and the agencies which administer it as a part of the economic mechanism whose task is to stimulate the activity of creating and realizing income, but with obligations that must be strictly respected. Large social differences will come about through differing labor and differing results of labor, but the appropriate distribution in society and an effective tax mechanism should bring those differences within tolerable limits. The entire mechanism should be oriented toward legalizing everyone's work, toward scrutiny of its results and fair treatment of the income realized. This will strengthen every individual's awareness of his obligations to the community and of community needs and will not make of him a split personality who is a self-manager in the forenoon, while in the afternoon he is a moonlighter evading many regulations of society, with the moral justification that no other way is possible--since the work and income in the forenoon are not enough to live on, and the afternoon work and illegal earnings not burdened with obligations, as an expression of need, are becoming the general rule, so that conscience is placated, as is the case in any phenomenon that is widespread enough.

The ultimate effect of a rigid attitude toward small business is the failure to satisfy legitimate human needs and shortages occurring now in one domain and now in another, and the shortage of many services is a lasting phenomenon. Another consequence is that an ever increasing number of citizens turn to society to solve the problems of their everyday existence. Even if the citizen

himself were able to solve them if the conditions of society, support and aid allowed, he multiplies the number of those cases which have to be solved even if the citizen could handle them himself if there were certain social conditions, support and aid, he multiplies the number of those cases which have to be dealt with by public means, through collective action and government intervention. This is, of course, a long and expensive way and cannot as a whole replace what the initiative of every person, his own effort and sacrifice could bring. Social welfare problems are compounded in this way, and the pressure on society becomes too great. This course has its consequences in the development of social relations, in a strengthening of statism, while on the other hand there is the use of privileges or speculation about obtaining employment, certain goods or an apartment.

A great deal of human energy is thus spent not on work and the creation of new value, but on the distribution of rights and goods not accompanied by the corresponding benefits. One of the essential reasons why little or insufficient work is done is that the individual need not commit himself entirely to solving the basic questions of his life, and the available resources, even though modest, can therefore be used for purposes which he would never denote as priorities if he had to deal with them on his own, or at least participate in dealing with them through his own efforts and resources. This contains a sizable portion of unrealized social wealth; that is, this is often the cause of the squandering of the resources of society.

Every society, depending on its basic production relation, determines and will determine those sectors and branches in which it does not wish private acquisition of property. But once it sets those limits, it is in the social interest and the interest of the individual to encourage maximum activity in the development of public, cooperative or private activity. Everything else fails to contribute to progress and places on the agenda a crucial issue--What is the origin of the right of someone or some institution to deny opportunities or aid so that someone can himself deal with the question of his employment, his housing, so that he can work more and spend more in order to protect his health, so that he can achieve that? Such a course cannot be harmful to socialism; it can only enrich it and make it more humane, offering every worker the opportunity to display his creative abilities.

In all of these matters related to the development of small business there is obviously a great deal for the subjective factor in society to do. We can easily recognize in these phenomena certain conceptions and errors which have stubbornly persisted and have become a part of the unsuperseded social consciousness and certain outdated ideas about a socialist society. Since this phenomenon does not belong to us alone, but is occurring in acute form in all socialist systems we know about so far, it cannot be superseded without a clear ideological commitment and action to change that situation. For example, the neglect of agriculture, of small business, of service activities, the emphasis on large-scale industry, and so on, could have been interpreted after the revolution as the need for primary accumulation, in terms of the backwardness of our economy, which could keep pace with the times only through industrialization. But such conceptions today can only be an obstacle to the utilization of all natural, productive and human potential.

The farmer on his private holding after the war, with his monopoly over the land and in the general shortage of food could have been a competitor of the weak and unequipped socialized farms. This might have been true of any small-scale commodity producer in any sector of the economy. But is that the case today, and what does it mean to point to small-scale commodity production as a danger? What are the proportions between them and on what side is the economic strength? This is clear in and of itself, but under one essential premise--that the socialized sector, given the operation of economic laws and the market, develops the productivity of labor and makes optimum use of its immense social capital. The changes which are now being made and which should be carried to the end on the basis of the long-range program, will demonstrate that the fear of small business is irrational and that the socialized economy itself will both within itself and outside it show a full interest in the development of small business in its own interest as well as on behalf of the progress of society. Just as in the political sphere of society the balance of power determines its general course and social orientation, so does the balance of power in the economy, in the specific case of the socialized sector of the economy and the rest of the economy, determine the strength and scope of each of them, but all of these different parts of the economy are indispensable and serve its optimum development. If they cooperate with one another to a maximum on optimum economic foundations, it will soon be evident that all the fears of small business were premature, that its underestimation has been quite harmful, and many dogmas will become faded in this connection and will be transferred to the museum of antiquities, and its indispensability and benefit to the economy and society will at the same time be confirmed.

7045

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EXECUTIVE COUNCIL'S KOVACEVIC SPEAKS ON FOREIGN LIQUIDITY

LD271608 Belgrade TANJUG Domestic Service in Serbo-Croatian 1047 GMT 27 Nov 84

[Text] Belgrade, 27 Nov (TANJUG)—Zivorad Kovacevic, Federal Executive Council member, spoke at the SFRY Assembly Chamber of the Republics and Provinces session today regarding the basis of the normalization of our external liquidity during the 1985-1990 period.

During all the discussions thus far, a positive evaluation has been made of the orientation to work out a program of normalizing the country's foreign liquidity to run over a period of several years, Kovacevic said. The following was the intention behind the decision to determine the basis of the policy of normalizing Yugoslavia's external liquidity during the ensuing 5-year period: first, with the active participation of all the country's most responsible bodies to lay down a program to help us extricate ourselves from the situation of excessive indebtedness on the basis of a dynamic development policy whose basis should be provided by export expansion; second, that all these questions be discussed publicly and that the policy should be determined in a broad democratic discussion, to fully reveal the truth regarding our situation and what we all must do not only to get out of that situation but to get out of it strengthened; third, to provide the country's economic factors with as much certainty as possible regarding the possibility of economic operations bound up with economic ties with foreign countries over a fairly long period of time to make it possible for them to plan more reliably; and fourth, to obtain a clear platform for the negotiations with the IMF and our other creditors.

It should be clearly stated: This program's point of departure is not to refinance our debts through the understanding of our creditors; rather, it is the realistically applied principle of relying upon our own resources. The objective is to change the negative and restrictive trends to positive ones and those favoring development: instead of reducing the deficit on the basis of reduced imports and with the accompanying slowing down of production and employment, rigorous restrictions on investments and joint expenditure, and a serious fall in the living standard, to strive for an increased balance of payments surplus based on a larger export volume, and of imports as well, for a dynamic growth in production, especially exports, active export replacement, and especially for a revival of investment.

The question of whether this program is a realistic one was justifiably asked during the discussion. It is not easy to answer this question. The Federal Executive Council has made the assessment that it is possible but will not be

easy to achieve because it calls for many changes in the development priorities, organization and conduct that will strongly support the changes in our system and economic policy.

Accordingly, this is a difficult task requiring unified orientation, result, and full mobilization of all the factors in our society, ranging from the basic organization of associated labor to the federation, Zivorad Kovacevic stressed.

One thing is certain: If we do not free ourselves from greater indebtedness, there will be no full economic independence or indeed any other independence for our country. We shall permanently be in a situation where we will have to conduct difficult negotiations, make concessions, and accept compromises, and make moves that we would otherwise not want to make.

It is precisely this orientation, which should not jeopardize dynamic development and which is based on it, bearing in mind the limits of what society can endure, that imposes the necessity of refinancing a portion of our debts. It is not realistic to reckon which such a rapid growth of foreign currency inflow, which will make it possible for us to pay off all the debts in the years to come, when the replacements will be at their highest. [Sentence as printed] This is why we are suggesting refinancing a portion of our debts (in which respect we will repay more rather than refinance) and to do this over a period of many years.

The program of consolidating Yugoslavia's external liquidity during the next 5-year period imposes truly serious tasks:

- a \$3 billion reduction in the overall national debt;
- reduction of our relative indebtedness from 45 percent to 25 percent of our overall foreign currency inflow;
- a considerable increase of our foreign currency reserve so as to ensure our ability to meet the payments due at the level of international standards [as received] which should already start this year;
- a considerable reduction of our short-term debts to a level in keeping with their customary function;
- a considerable increase in the surplus of current balance of payments transactions with the convertible currency area primarily based on increased commodity and service exports at a rate higher than the growth rate of our social product;
- our business banks' return to the international financial markets as credit users.

The economic developments in 1984, Kovacevic said, although below of what has been planned in the export area, are nevertheless showing the beginning of some other tendencies. There is no reason to exaggerate them, but they should not be underrated either.

The data for the first 19 months of this year, which realistically should not be expected to change substantially by year end, show a 53-percent increase in production compared to the same period last year. A surplus in the convertible currency section of our balance of payments has been achieved which is expected to total between 700-800 million dollars by year end. This surplus has been obtained not [word indistinct] reducing imports which increased from 0.41 percent in 1979 to 0.56 percent this year certainly not a very impressive percentage, while the extent to which our exports covered our imports rose from 50 percent to as much as 84 percent.

We are conducting negotiations with our creditors at this moment. An IMF mission is in Belgrade. Together with members of the mission we are analysing this year's results and commencing regarding negotiations the form of our future relations. We also conducted talks with representatives of commercial banks who have been here recently regarding our future arrangements.

On the basis of the powers given us by the [Yugoslav] assembly we informed our creditors of our intention to reach agreement regarding an arrangement extending over a period of several years. We are reckoning with a refinancing of our debts whereby a major portion of these debts, due in (7.7 billion dollars) should be met in full, while the second, a smaller portion of the debts (5.7 billion dollars) should be refinanced.

No request has been made for the debts on the basis of credit arrangements of 1983 and 1984 to be a subject of refinancing.

In the eventuality that an agreement is not arrived at, that is if unacceptable conditions are made, the Federal Executive Council has provided a variant. Our point of view is that the application of such a variant would be very unfavorable, not only from the viewpoint of development and normal systemic functioning, but would also essentially not suit either our creditors or their interests. Nevertheless, if we are forced we shall have to embark on it, Zivorad Kovacevic said in concluding his statement.

CSO: 2800/107

YUGOSLAVIA

AVERAGE INCOME, FAMILY NEEDS IN MAJOR CITIES

Belgrade RAD in Serbo-Croatian 14 Sep 84 p 4

/Table: "What We Take In, What We Need" /

/Text /

	Average Personal Income For June, 1984	Minimum Needed To Sustain Four-Member Family
Sarajevo	21,687 dn.	23,000 dn.
Titograd	17,919	30,000
Zagreb	24,601	22,000
Skopje	19,197	12,000
Ljubljana	28,267	15,000
Belgrade	22,626	33,000
Novi Sad	22,829	15,000
Pristina	18,945	28,000

The above totals obtained in answer to the question--what is the minimum amount needed to sustain the average Yugoslav family--must be considered with some reservation because of different standards used by city councils. Some councils consider all expenses, from a student's ruler to a kilogram of bread and new furniture, while others consider only expenses for food, rent, and some "smaller" expenditures.

9548

CSO: 2800/19

INEFFECTIVENESS OF NEW PRODUCTION CAPACITIES

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 17 Sep 84 p 5

[Article. "Illusion of Growth"]

[Text] The 5.3 percent rate of growth of industrial production for the first 7 months of this year, the above-average agricultural harvest, and the possibility of above average growth in the tourist sector are the bright spots in official evaluations of the economic situation. Although much uncertainty still exists on the part of nature, as well as with regard to the reliability of the rate of industrial growth mentioned above, and although both harvests are relying on forecasts to a significant extent, all further expectations of economic movement depend on the continuation of these trends as signs that "the recovery has finally begun." With regard to agriculture, attempts to continue this trend can be reduced to better planting methods and better organization of seasonal campaigns, while tourism remains an unknown quantity which depends more on foreign circumstances than on domestic initiatives; after all, nothing more can be done to affect this year's harvest, and the next one still appears too far away.... Thus, the question of whether the "initial process of recovery" continues depends on whether growth in industrial production continues.

Normal comparisons, in which statistics are taken at face value, are certainly not enough to judge the structure, let alone the nature and quality, of growth of industrial production being attained. Even ignoring the fact that ship-building leads all categories in the percentage of change in production compared to the same 7-month period last year--an industry in which one product sometimes takes several years to finish and in which the growth rate (37.8 percent) was more than 7 times that of the average for industry as a whole--one can hardly imagine how much variation in the production results of various groups is demonstrated, for example, by the fact that July production this year was 10.8 percent above that of July of last year, and at the same time, 10.4 percent below the average monthly level for last year, and even 18.7 percent below the rate for June of this year! In analyses done by the Federal Executive Council, this lack of uniformity in production is explained by irregular supply of industrial materials for reproduction, especially those which are imported. Similarly, the present "recovery" can be primarily explained by a more favorable state of supplies of material for reproduction--including increased import of these supplies--since the beginning of this year in comparison to last year.

However, it is precisely the sudden decline in July which again opens up the same problem in a more distinct way, and at the same time brings into doubt the assertion that the "recovery" in the first half of this year was the result of an improving supply of raw materials for industry from domestic sources. If the "recovery" can be truly characterized by a greater contribution from the raw materials sector, one question remains unanswered--where does the decline in production and manufacturing come from? Here one might also note the opinion of experts in the area of business trends who are members of the Yugoslav Economic Chamber. Among the reasons given for fluctuation, they attach special significance to "unfinished production"; this takes place not only because of the late delivery of some vital component or part needed to finish and deliver the product--regardless of whether it comes from domestic production or from import--but also because of expectations of new prices, whether for individual parts or finished goods, or even for both! Analysts attribute these elements to the latest "recovery" as well.

However, concerning the material quantity and structure of industrial production, one can still question the dynamics of completion of new capacities and their influence on production increases. According to the present method of reporting, it will be 2 years before we have the data for this year, and for now expectations are only based on the fact that these data for the 5-year series ending in 1982 were only recently reported (and published in EKONOMSKA POLITIKA no 1681 in the column "Economic Trends"). According to these data, in a total of 3,268 new plants which were put into operation from 1978 to 1982, an increase in material quantity of total industrial production of 1.2 percent was achieved in 1978, 0.9 percent in 1979, 1.2 percent in 1980, 0.4 percent in 1981, and 0.2 percent in 1982. With reservations regarding the accuracy of the data in the category of plants "under construction," however, one should state that during this period only a little more than one-tenth of the projects which were part of the comprehensive "investment front" have been completed since the end of the 1970's, and that during this time their share of total production has amounted to 15.4 percent; moreover, it amounted to 4.4 percent in 1978 and only 1.2 percent in 1982. The coefficient value used by these new capacities is not known. Official data only indicate that employment in new industry during some years pulled up the overall annual rate of employment (from 0.1 percent to 0.6 percent). Understandably, one cannot possibly conclude from this that new industry reduced total productivity, nor can the opposite be concluded.

Nevertheless, this meager survey shows the slow rate at which projects are completed and the relatively high proportion of new capacities in production, but also an uncertain influence with regard to the quality of changes. Thus, only one-tenth of the projects involved in the comprehensive "investment front" have been completed in the period mentioned since the end of the 1970's. However, this is only part of a longer cycle of intensive investment activity--mostly taking place in industry--whose value is not less than \$30 to \$35 billion, and whose objective is to modernize the Yugoslav economy, eliminate its greatest structural discrepancies, and make it economically efficient by world standards.

In this light, the "recovery" in industrial production--so longer awaited and now finally welcomed--with turns from quarter to quarter and from month to month

has been described as losing the stimulation of the trend which now only needs to keep on going. This really removes every reason and justification to qualify it as a "recovery" and to attribute it as a positive point to policy and decisions made in the economic system, whose product it is. Earlier, one might have said that we had gotten some sort of a "recovery" in production in spite of the effect of its decisions which are in effect. There is even less reason for trying only to persist in this system, to minimize making changes in it, and to postpone as much as possible, always without having an alternative and continuing to use "early results" to prove one's point. Thus, one should be quick to add to the fact that the rate of "recovery" is high in industrial production the fact that the rate of increase in exports is still below that of production, and that the threat of inflation has not been mentioned.... A new lesson can be added to the one which states that social and economic problems cannot be solved during economic stagnation: they cannot be solved during either periods of expansion or growth which are not based on market relationships and economic principles. Thus, changes in conditions and relationships are to be preferred, not "persistence" in the use of old methods.

9548

CSO: 2800/19

STATUS, PROJECTION OF FOREIGN DEBT, 1983-1990

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 5 Nov 84 p 11

[Text] Status and Projection of the Foreign Debt, 1983-1990, in billions of dollars

<u>Indicator</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
1. Level of the debt at the end of the year	19,300	18,600	17,800	17,100
2. Changes	+300	-700	-800	-700
3. Interest	1,900	2,050	2,000	1,870
4. Repayment of loans	3,200	3,450	3,500	3,400
5. Reduction of short-term credits	100	200	200	100
6. Line 3 + Line 4 + Line 5	5,200	5,700	5,700	5,370
7. Current inflow of foreign exchange*	11,630	13,070	14,810	16,160
Foreign debt index in percentages (Line 6:Line 7)**	45	44	39	33
8. Surplus in the current account of the balance of payments with the convertible area on the basis of goods and services at the rate \$1 U.S. = 99 dinars	74	134	150	140
	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>Total</u>
1. Level of the debt at the end of the year	16,800	16,400	16,000	16,000
2. Changes	-300	-400	-400	-3,000
3. Interest	1,950	1,860	1,760	13,380
4. Repayment of loans	3,500	3,000	3,000	23,050
5. Reduction of short-term credits	0	0	0	700
6. Line 3 + Line 4 + Line 5	5,550	4,860	4,760	37,130
7. Current inflow of foreign exchange*	17,140	18,180	19,260	110,580
Foreign debt index in percentages (Line 6:Line 7)**	32.	27	25	

Table (continued)

<u>Indicator</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>Total</u>
8. Surplus in the current account of the balance of payments with the convertible area on the basis of goods and services at the rate \$1 U.S. = 99 dinars	141	151	152	942

* Includes exports of goods and services, net remittances and interest collected, assuming a 4-percent annual rate of increase of foreign prices.

** This debt index includes all foreign credits (short-term, medium-term and long-term).

Trend of the Social Product, Imports and Exports of Goods and Services (percentages of annual growth)

<u>Indicator</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>Annual Average</u>
Social product	1.0	4.0	4.0	4.0	5.0	5.0	5.0	4.2
Imports of goods and services	1.2	4.6	12.3	8.8	4.7	4.8	3.4	5.6
Exports of goods and services	10.8	10.3	12.2	6.9	4.3	5.0	3.1	7.2

7045

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TEST PRODUCTION OF URANIUM CONCENTRATE AT ZIROVSKI VRH

Belgrade BORBA in Serbo-Croatian 30 Oct 84 p 4

[Article by Z. Medved: "Ore for Three Nuclear Power Plants"]

[Text] The first days of test production of the uranium "yellow cake" at the Zirovski Vrh uranium mine above Skofja Loka confirmed optimistic expectations. So far the mine has produced 62,000 tons of uranium ore, which just by the end of this year will yield 20 tons of concentrate, which is called "yellow cake" because of its color. The concentrate then goes abroad for enrichment and comes back in the form of separate elements that constitute the fuel for the nuclear power plant at Krsko.

Incidentally, the mine, which is 2 km long and divided into four levels, can yield 160,000 tons of ore a year, which in processing yields 120 tons of uranium concentrate and then about 16.6 tons of fuel for a nuclear power plant.

The equipment which we had occasion to see in the mine and in the processing plant qualifies as high technology; the American firm "Flour Mining and Metals" of San Mateo was the principal planner, with the significant participation of the Jozef Stefan Institute of Ljubljana. In addition to them, "Rudis," a mining institute from Ljubljana, the Geology Bureau of Ljubljana, the Mining Institute of Belgrade and specialists from the mine itself also collaborated in planning the exploration and mine technology.

A Justifiable Investment Project

It is a significant success that as much as 60 percent of the equipment in the processing plant was manufactured in Yugoslavia and enjoys the high opinion of the American partner. Unfortunately, that is not the case with the equipment in the underground mine, 70 percent of which is imported, but the first steps have been taken so that in future some of the transport equipment will be obtained from domestic manufacturers. In any case, the value of the entire project is 6.8 billion dinars, and at this point the entire job is 86 percent completed. By the end of this year they expect to complete 93 percent of the jobs covered by the project, so that next year it will be possible to increase production significantly, and operation will go into full swing in 1986.

Although we are talking about large resources, even now it can be said that the investment in the mine was entirely justified. That is, it is estimated on the basis of prices on the world market that the uranium mine will save

Yugoslavia about \$5 million a year which we otherwise would have to pay to import fuel for the nuclear power plant at Krsko. It has also created an opportunity for export, since explorations show that exploitation of the ore could last for 22 years in the existing mine, and the quantities are sufficient for three nuclear power plants of the Krsko type. Moreover, 11 new holes have already been drilled, and there is ore in all of them, which promises the mine a bright future.

The future, of course, also depends on personnel. Plans call for employing about 400 workers in the mine and processing plant when full production begins. There are now 370 of them and they have very high qualifications.

Meanwhile the Zirovski Vrh mine is in need of 40 miners.

Superb Protection

They say that people are afraid of uranium, that is, radiation, but Dusan Pensa, mine director, assured us that the only radiation danger is from the radioactive gas radon, which is dealt with effectively in the mine with the strong ventilating system, and all the measurements so far show that the concentration is far, far below the critical limit. In addition, all safety measures prescribed for nonmethane underground mines and chemical plants have been taken in the mine, and much more than that has been done. That is, the Jozef Stefan Institute has developed a closed-cycle technology for processing water, the only one in the world for plants of this kind, so that there is no danger whatsoever for the environment from effluents.

A "dry" dump has already been prepared for the hydrometallurgical tailings remaining after processing; it has been placed on a site which guarantees maximum safety. The only problem at present is the mine water, which drains into the Brebovscica River, but measurements have shown that the radioactivity of the water in the river is at the level of radioactivity of drinking water! It can actually be said that the Zirovski Vrh uranium mine, as far as danger to the environment is concerned, is among the "cleanest" and safest mines of this kind in the world thanks to homegrown intelligence and supreme technology.

In order to carry out the ambitious plans for the mine's development an agreement will finally have to be reached, we were told, at the level of Yugoslavia, and a specific program prepared for development of nuclear power, since otherwise there will be neither new explorations nor new investments. At present only Slovenia and Croatia are thinking about a possible joint investment.

7045

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DATA ON LIVESTOCK PRODUCTION, 1975-1984

Belgrade GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA in Serbo-Croatian No 9, Sep 84 pp 32-37

[Article by Slavomir Radosavljevic, economist: "The Situation in Livestock Production and a Proposal of Measures for More Rapid and Stable Development of Livestock Raising"]

[Excerpt] The Long-Range Economic Stabilization Program sets forth the general commitments in development of livestock production in the section concerning the development of agroindustrial production. It provides that livestock production and total meat and milk production should increase between 2.5- and 3-fold by the year 2000 and that animal husbandry should be the leading branch in agriculture, with the provision that the balance-of-payments position toward foreign countries would be corrected by exporting livestock and the products of animal husbandry and by eliminating imports to a considerable extent. Much more detailed and specific solutions need to be offered in the operational stage for realization of this program. This analysis is precisely an attempt to raise some of those questions.*

The Situation in Livestock Production

In the medium-term plan for development over the period 1976-1980 the actual growth rate of livestock production was about 3 percent (planned at 4 percent). The trend of livestock production in 1981, 1982 and 1983 shows that in the current medium-term period the actual growth rate will be at a somewhat lower level.

* The analysis entitled "The Situation in Livestock Production and a Proposal of Measures for More Rapid and Stable Development of Livestock Raising" was drafted as part of the work program of the General Association of Yugoslav Agriculture and Food Processing Industry for 1984 and taken up last June and July in meetings of the assembly, executive board and commissions of the General Association of Yugoslav Agriculture and Food Processing Industry and the grouping of producers of livestock and livestock feed and processors and distributors of livestock and animal products.

The physical volume of output of animal husbandry as a whole in 1983 was at the 1982 level, which was only 1 percent higher than 1981. This shows that the 1981 level of production has for all practical purposes persisted in the last 2 years.

<u>Indicator</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Animal husbandry	103	101	100
Cattle raising	101	103	99
Swine raising	106	98	103
Sheep raising	98	104	100
Poultry raising	101	102	101
Beekeeping	95	98	125

The figures on the size of the livestock population between 1975 and 1984 (as of 15 January) show that over that period there was a steady drop in the total number of cattle and a disturbing decline in the number of breeding animals--cows and pregnant heifers (Table 1). The total number of swine and also of sows and pregnant gilts has increased considerably with large fluctuations, but by all appearances that number will not hold up to the end of the year.

Table 1. Livestock Population From 1975 to 1984 (as of 15 January), in thousands of head

<u>Indicator</u>	<u>1975</u>	<u>1978</u>	<u>1980</u>	<u>1983</u>	<u>1984</u>	<u>1984/ 1975</u>	<u>1984/ 1983</u>
Cattle--total	5,872	5,542	5,436	5,351	5,342	91.0	99.8
Cows and pregnant heifers	3,195	3,184	3,091	3,050	2,974	91.1	97.5
Swine--total	7,683	8,452	7,502	8,370	9,333	121.5	111.5
Sows and pregnant gilts	1,375	1,406	1,238	1,334	1,511	109.9	113.3
Sheep--total	8,175	7,514	7,354	7,452	7,440	91.0	99.8
Breeding ewes	5,784	5,513	5,341	5,393	5,406	93.5	100.2
Horses--total	922	759	617	505	464	50.3	91.9
Poultry--total	54,991	60,398	63,055	69,679	73,711	134.0	105.0
Hives--bees	856	899	861	803			

The number of sheep has been declining for quite a number of years now, but trends in recent years indicate a halting of the negative trends. The number of horses has dropped off rapidly. It has been cut in half since 1975, and there is a threat that it will decrease further. The number of poultry has been increasing at a very high rate, and the growth trend is still evident.

The cyclical nature of production is evident in the size of the livestock population, especially that of breeding animals and especially in swine raising, where since the war there have been six cycles with extremely large amplitudes amounting to about 25 percent in phases of depression and less than 20 percent in phases of expansion. The largest growth of production was achieved for swine and poultry, whose feeding is based on concentrated feeds, largely

imported, while there has been a drop in the number of cattle, sheep and horses, which can use coarse livestock feed from domestic sources.

The low level of the livestock population that has been maintained in our country for years is a consequence of the low ratio of the livestock population relative to the area of farmland and cropland. The number of cattle per 10 hectares of farmland (figures for 1980) is 25.9 in Holland, 7.6 in France, 8.9 in the GDR, 6.7 in Poland, and only 3.8 head in Yugoslavia. The situation is similar with swine. In Holland there are 50.2 head of swine per 10 hectares of farmland, in Denmark 34.4, in the GDR 19.4, in Poland 11.3, but in Yugoslavia 5.3.

The production of meat and milk, measured per unit of farmland, is also low. In Holland annual production per 10 hectares is 9.4 tons of meat and 58.3 tons of milk, in West Germany 3.9 tons of meat and 20.2 tons of milk, in the GDR 2.8 tons of meat and 13.3 tons of milk, in Poland 1.5 tons of meat and 8.7 tons of milk, but in Yugoslavia 0.9 ton of meat and 3.0 tons of milk.

Table 2. Production of Meat, Milk and Other Products of Animal Husbandry

Indicator	1975	1978	1980	1982	1983	Index 1983/ 1982
1. Meat production	1,052	1,256	1,226	1,274	1,280	100.5
Beef	330	344	344	362	357	98.6
Pork	390	499	461	486	488	100.4
Mutton	56	62	59	59	62	105.1
Poultry	188	254	277	283	287	101.4
Horse	12	12	8	9	14	155.6
Viscera	76	85	77	75	73	97.3
2. Milk production (in millions of liters)	3,688	4,148	4,352	4,596	4,604	100.2
3. Egg production (in millions)	3,590	4,062	4,394	4,612	4,567	99.0
4. Wool production (in tons)	10,664	10,220	10,073	9,737	9,517	97.7
5. Honey production (in tons)	3,774	5,004	5,704	5,339	6,627	124.1

Low yields of meat and milk per head of livestock also contribute to the low production of meat and milk. The average slaughterhouse weight of cattle slaughtered is 265 kg in West Germany, 249 in Holland, 235 in Denmark, but 185 kg in Yugoslavia. The explanation lies in the fact that in our country about 1 million calves are slaughtered every year with an average weight of about 130 kg, and the slaughtering of calves represents about 40 percent of all the cattle slaughtered. The situation is much the same with young animals of other livestock types as well. Every year about 5 million suckling pigs are slaughtered weighing about 15 kg, representing 40 percent of total swine slaughtered, and about 4 million lambs with an average weight of 19 kg and a share of 85 percent in total sheep slaughtered.

Milk production per head is also low. The average annual milk production per dairy cow in Yugoslavia is 1,540 liters, while in the countries with advanced

animal husbandry is several times greater (5,050 liters in Holland, 4,880 in Denmark and 3,282 in Hungary).

Production and Processing of Meat, Milk and Other Products of Animal Husbandry

Some of the things which contribute to this low level of production per unit capacity in animal husbandry are the poor breed pattern of the livestock population, an inadequate selection effort and incomplete performance of zootechnical and veterinary measures.

In spite of all the difficulties, the production of meat, milk and other livestock products has been increasing at a mild rate, although still less than the expectation for this medium-term period (a rate of 4.5 percent).

Meat production in 1983 was 21.7 percent higher than in 1975 and grew at a rate of 3.1 percent over the period from 1976 to 1980. That growth was lower in the years that followed: 2.2 percent in 1981, 1.7 in 1982 and 0.5 percent in 1983.

Milk production has been recording an uninterrupted growth for quite a lengthy period now: it rose 24.8 percent between 1975 and 1983 and increased at an annual rate of 3.4 percent over the period from 1976 to 1980. In 1980 the growth was 2.9 percent, in 1982 it was 2.6 percent, but in 1983 it was 0.2 percent.

Milk purchases have stayed at the same level in recent years. The share of purchases in total production was 24.2 percent in 1975, 31.2 percent in 1978, 31.5 percent in 1980, 29.7 percent in 1982 and 30.1 percent in 1983. This can be explained by the disrupted price parity between meat (veal) and milk to the disadvantage of milk and the ever larger use of milk as a livestock feed instead of imported protein feeds, which are in short supply.

Between 1975 and 1982 there was a steady growth in egg production. In 1983 a minimal drop was recorded, and the reason was the shortage of protein feeds. Wool production has dropped off steadily, and the reason is the drop in the number of sheep. A steady growth is evident in honey production, but fluctuations occur in years unfavorable to apiculture.

Indicators of the trend in meat and milk production are sufficient to point up that the growth of production in animal husbandry has slowed down and is quite close to stagnation. Since the consumption of these products has increased, this has brought about a deficit of certain basic animal products, a shortage on the domestic market, and imports. Last year about 42,000 tons of beef, about 20,000 tons of pork and 9,000 tons of poultry meat, 30,000 tons of fresh milk, 5,000 tons of butter and about 1,000 tons of cheese and other products were imported. The actual deficit was greater than the quantities imported, but it could not be made up because of the shortage of foreign exchange.

Level of Organization of Livestock Production

For quite a number of years, up until the mid-seventies, animal husbandry recorded a steady growth, it was a branch with surplus output and a sizable exporter of raw and processed foods, and that was the reason that sufficient attention was not paid to its development in the previous period. The present situation indicates the need for rapid intervention in this branch.

The objective factors slowing down the processes of organization and linkage of livestock production with interdependent branches include the following:

- i. inadequate conditions for the conduct of economic activity for the entire livestock-raising complex by comparison with the economy as a whole and the agroindustrial complex, but especially by comparison to field crop production, along with great differences in conditions for conduct of economic activity from grouping to grouping within the livestock-raising complex, and
- ii. the absence of incentives in primary livestock production and production of livestock feed which would arouse interest in joint production.

Analyses of the economic position of the livestock-raising complex made last year indicate very unfavorable trends and the fact that animal husbandry occupies a subordinate position to the agroindustrial complex as a whole and field cropping in particular. Although it is well known that work in animal husbandry faces more difficult conditions than the other branches of agriculture, animal husbandry is below the average for field cropping with respect to all indicators (income per worker is about 20 percent less, net personal incomes about 10 percent less, and accumulation per worker about 20 percent less; losses per worker are twice as great, and accumulative and reproductive capacity are about half as high, with very large losses amounting to about 4 billion dinars passed on to the packinghouse industry). These results are somewhat more favorable in the year-end financial statements for 1983, but that does not essentially change this branch's position. Because of this relationship between field cropping and animal husbandry it is difficult to expect any greater linkage between these branches.

Within the livestock-raising complex there are also differences in the conditions for the conduct of economic activity: on the one hand we have animal husbandry and the packinghouse industry, and on the other the livestock feed mills, whose results are above average compared to the agroindustrial complex and indeed even to the entire economy. The explanation for this is that the prices of animal feed have been rising more rapidly, though the decline in the quality of the feed is commonplace, and this is being reflected more and more in livestock production and other phases in the entire cycle of reproduction. In primary livestock production the incentives have not been adequate, integral or long-term. This applies to credit financing based on rediscounting, which covered only fattening of livestock (at a rate of 40 percent), but not the production of stock for breeding and reproduction, milk, certain types and categories of livestock, coarse livestock feed (silage corn and the like) grown both as a regular and stubble crop. Given the partial coverage in selected policy and the low rediscount rate, when the market prices of livestock

were ranging 50-60 percent above producers' sales prices, it was not possible to influence the orientation of this production, and selective credit financing has not become a means of ensuring firmer conclusion of advance production contracts. On the contrary, that kind of credit financing has been unable to provide any greater motivation on the part of either the producers or the commercial banks.

The system of bonuses for livestock represents a means whereby it is possible to exert an influence toward better organization of production. The same applies to the stockpiles of foodstuffs, which, if they are used for intervention on the market, could also be an important factor in stimulating better organization. That is, intervention on the market ensures more stable market conditions favorable to economic entities, since only under such conditions is it possible to undertake firmer conclusion of contracts and linkage. The Federal Directorate for Reserves has not had that kind of function in recent years. In the context of the free formation of the prices of livestock feed and livestock and high inflation, then, the producers, above all private farmers, have not been motivated to conclude contracts and establish higher forms of organization.

The process of organization and linkage of organizations of associated labor and work organizations in the animal husbandry complex with interdependent entities has also been slowed down by subjective factors. They can all be boiled down to a few groups:

- i. the nonexistence of clearly defined development programs of the individual basic organizations of associated labor and work organizations in the framework of the system, including their place and role in the vertical production chain of livestock, livestock feed and the processing of animal products;
- ii. the nonexistence of firm and dovetailed production plans--annual and multiannual;
- iii. unregulated prices and relations in the distribution of income among livestock producers, livestock feed producers, packinghouses and milk processors;
- iv. undefined export-import and foreign exchange policy for participants in the cycle of reproduction;
- v. lack of definition as to which entities will carry on the development of the various lines of production (milk, meat, etc.).

In a small number of combines development programs and plans have been linked up and dovetailed, and the mutual relations among the various interdependent basic organizations of associated labor have been regulated. Much more frequently the relations in these systems are those of purchase and sale, and the cancellation of delivery contracts is a very frequent occurrence. Quite often prices are the reason for things of this kind, especially when agreements are made outside agricultural systems in associations of particular branches.

Organization in the private sector is a problem in itself; this sector is a sizable producer of livestock (about 80 percent) and livestock feed, above all corn (about 85 percent). Although private producers can be organized into basic organizations of cooperators, cooperatives and other forms, most of them are outside these organizational forms. That is why a sizable portion of their output is not subject to social guidance, and the trade in livestock and corn mainly takes place freely on the market in the form of purchases.

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CIRCUIT BREAKERS, DRIVE CHAIN TO USSR

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 5 Nov 84 pp 34-35

[Text] Representatives of the drive chain manufacturers "Filip Klajic" of Kragujevac and "Promsirioimport" of Moscow, have after lengthy negotiations set the prices for next year and at the same time concluded a contract for exporting \$3 million worth of drive chain to the USSR. Moreover, the customer in Moscow is insisting that the delivery of chain begin this December, suggesting a doubling of his needs.

It is worth recalling that in 1981 \$18 million worth of drive chain were exported to the USSR through this firm, and then there was a sudden drop in the size of exports to that country because of the Moscow firm's insistence that the Kragujevac manufacturer lower prices significantly.

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